

# EAST FORK LOCUST CREEK WBID 608

# **Recreational Use Attainability Analysis**

May 2007

PREPARED FOR:
RFP No: B3Z07134
Water Quality Monitoring & Assessment Section
Water Protection Program
Division of Environmental Quality

MISSOURI DEPARTMENT OF NATURAL RESOURCES

P O Box 176 Jefferson City, MO 65102

PREPARED BY:

MEC WATER RESOURCES, INC.

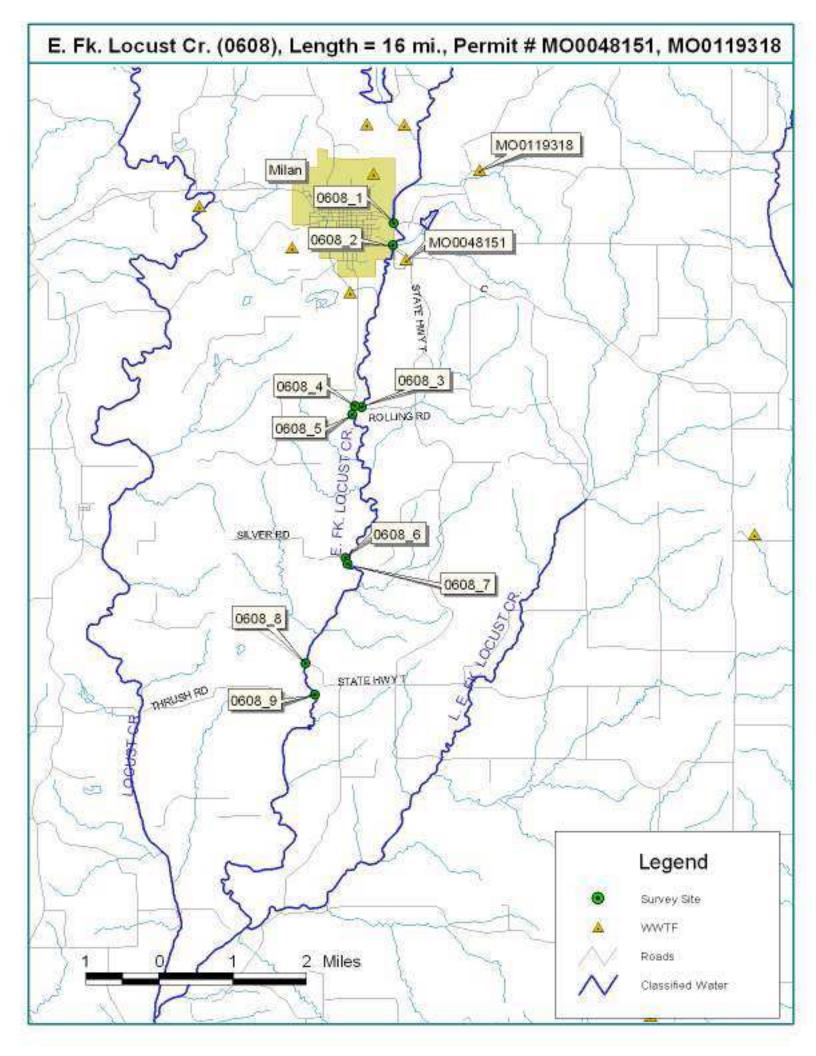
1123 Wilkes Blvd., Ste. 400

Columbia, MO 65201

Data Sheet A - Water Body Identification

I.	Water Body Infe	formation (For water body be	eing surveyed)						
				rk Locust Creek					
	Missouri Water	Body Identification (WBID		08					
	8-digit HUC: /	0280103		County: Sullivan	***************************************				
	Upstream Legal	Description (from Table H	D: Hw	6					
	Downstream Le	gal Description(from Table	eH): 17200	Lh					
	Number of sites	evaluated 9							
	List all sites nun 3- ROLLING RE	mbers, listed cnsequantly up	ostream to dow	nstream: 1-ETHIRD STREET 2-HW 400 M DEWNSTREAM 6-SILVER RD	мС				
			8-HWY T	9-THUNDER	MAOS				
II	. Subsegmentation	on (fill this section out onl	y in cases whe	re subsegmentation is being proposed	d)				
	Upstream Coord UTM X		ATOR PROJECTION,	Downstream Coordinates:					
		TION METHOD (Indicate the method user	d to determine the loca	UTM X Y tional data.)					
	C	Global Positioning System (GPS)		Interpolation					
	Static Mode			Topographic Map or DRG					
	Dynamic Mode (Kin	nematic)		Aerial Photograph or DOQQ					
	Precise Positioning	Service		Satellite Imagery					
	Signal Averaging		A-15	Interpolation Other					
	Real Time Different								
		GPS Data Quality		Interpolation Data Quality					
	FOM	±Meters		Source Map Scale: 1:24,000 1:100,	000 Other				
	EPE	±Feet or ±	Meters						
	PDOP			±Feet or ±	_Meters				
Ш		cility Information (list all p	ermitted dischar	gers on the stream)					
	Discharger Facil	lity Name(s):	Hill in	WTF, Milan WWT	0				
	Discharger Pern	nit Number(s):	1) 1115 10	William WWI					
		mo 0119	318, m	0 0048151					
IV		(prease print regiony)							
	Name of Survey	OF DENEE MARTIN	Te	lephone Number: (573) 443~	1100				
	Position:	mployer: MEC Wate	s Besoure	'es	The Control of the Co				
	Tostion. My	SLECIVIO 21							
Pl	ease verify that y	ou have completed all sec	ctions, checked	l all applicable boxes and that ever	vthing is				
co	mplete.	11. 1	.,	/ /	jumg is				
Sig	gned: <u>///////</u>	Mart		Date: _ 5/23/07					
		ou have completed an second of the Completed and second of	5-24	-07					
			man - 1	<u> </u>					
	February 16, 20	007	11/2/2/2011	27	Page 1				

Page 1



WBID#	0608
Site#	7

# **Data Sheet B - Site Characterization**

	ė			-										
Date & Time:	5/23/	07 07:35	>	Si	ite Location	n Desc	ription (e.g., road crossing):							
Personnel (Data	Collectors):	RIMARTIN & J.	ТотН	E/	AST THIS	D 5	TREET BRIDGE CRO	\$5 (176)						
Current Weather	r Conditions	· Partly Clouds	æ		Permit Number: MO 0119318; MO 0048151									
Weather Condit	ions for Past			1 1	Fermit Number: (1) OIL 1313, MO 0648151									
Drought Conditi	ons?: No dr	ought ∐; Phase I ∐	; Phase II L	J; Pha	ise III ∐;	Phase	IV □; Unknown 🗵							
Site Locations		NIVERSAL TRANSVERS	E MERCATO	R PROJI	ECTION IN	METER	28)							
		ГМ X: 049040			0.0010101201100000000110118010		50041							
1		IETHOD (Indicate the me	*	letermine										
	Global I	Positioning System (G	PS)	/		19,8323	Interpolati	ion						
Static Mode				1/1			ohic Map or DRG							
Dynamic Mode (				+	——————————————————————————————————————		otograph or DOQQ							
Precise Position	ing Service		······································				Imagery	X						
Signal Averaging	3				/ Int	erpola	tion Other	F \						
Real Time Differ	ential Proces	ssing		1	3.0									
HORIZONTAL A	CCURACY	ESTIMATE												
		GPS Data Quality	* ***				Interpolation Da	ta Quality						
FOM	±	Meters			8	ource	Map Scale: 1:24,000 1:100,	000 Other						
EPE	±/	Feet or ±	Meter	s			± Feet or ± Meters							
PDOP		mage of grant of the second of						Meters						
Photos:								•						
Photo ID#		Photo Purpose and D			Photo			se and Direction						
(WBID_Site#_##)	UP STREA	(upstream, downstream, o	PANSECT H	. <b>)</b>	(WBID Site# ##) (upstream, downstream, other) 01608_PIRE1_209 DOWNSTREAM, SITE HI TRANSECT									
0608-1-208	DOWNSTI	ZEAM SITE HI,T	RANSECTÉ	And I			-PIDE UPSTREAM,							
į.	1	DOWNSTREAM			Duos. f	ootprii	its1-211 UPSTREAM,	SITE III, TRANSETT						
OUD CINCELL	TRANSA	42	13.10	· ·										
	1	KED PIPE												
Uses Observed		actually observed	l at time (	of sur	vev.)									
Swimming	. (0303	Skin diving			A diving		☐ Tubing	☐ Water skiing						
☐ Wind surfing	~													
	3			Boating			Wading	Rafting						
☐ Hunting	1. 1	Trapping		Fishing		• 1	None of the above	Other:						
			ng, photo-do	cumen	tation of ev	ridence	e of recreational uses, etc. Us	se Data Sheet D- Recreation						
Use Interview W	nen conduc	ting interviews.)												
		J	······································											
Su <u>rrounding C</u>	ondition	S*: (Mark all that pron	note or imped	e recreat	tional uses. A	Attach p	photos of evidence or unusual ite	ms of interest.)						
☐ City/county	☐ City/county parks ☐ Playgrounds ☐ MDC co						☐ Urban areas	☐ Campgrounds						
☐ Boating acc	esses	☐ State parks	☐ Nation	al fores	sts		☐ Nature trails	☐ Stairs/walkway						
☐ No trespass		☐ Fence	Steep	slopes			☐ None of the above	☐ Other:						
-		1												
Comments:														
L.	nedtu	<b>V</b>												
FTW.	. Or F . B.,	*****												

WBID#	0608
Site#	1

# Data Sheet B - Site Characterization (must be completed for each site)

dications of Hu	ıman Use*: (a	ttach photos	s)							
☐ Roads	☐ Rope swings	☐ Foot path	s/prints	☐ Docl	k/platform	□ Li	vestock V	Vatering	□RV	/ ATV Tracks
☐ Camping Sites		☐ Fire pit/rii	ng	□ NPD	ES Discharge	☐ Fi	shing Ta	ckle	\( \frac{1}{2} \rightarrow Oth \)	ner:
Comments:										
Told I.	am pipe									
	٠,									
eam Morpholo						/				
<b>Upstream View</b>	's Physical Des	scriptions: I	s there an	y wate	r present at t	his viev	w? □ `	Yes □	No	
		I	f so, is the	ère an o	bvious curr	ent?		7es □	No	
Select one of the				175:	W / 1	T 41	<i>-</i> \ 1	34-4: D-		Mars Davids (m)
Channel Feature	Transect (#	/	nce from ess (m)	Wic	lth (m)	Length	(m)	Median De	ptn (m)	Max. Depth (m)
RIFFLE										
RUN										
POOL						\				
Downstream Vi	iew's Physical l	Descriptions	: Is there	any w	ater present	at this	view? [	∃Yes	□ No	
			If so, is	there a	n obvious cu	irrent?	Е	∃Yes I	□ No	
Select one of the	e following cha	nnel feature								
Channel Feature	Distance from		Width	(m)	Length (	(m)	Medi	an Depth (1	m)	Max. Depth (m)
RIFFLE					treat .		- 1			
RUN										
POOL			101 M.T.							
ubstrate*: (The	se values should	d add up to 1	00%.)							
- % Cob		% Gravel		6 Sand	**************************************	% Silt		% Mud/0	Clay	% Bedro
4:- \/4-4:	:*- O.T. /	, ,	,•	1 1	.11		, .,	`		
uatic Vegetati	ion": (Note amo	ount of veget	ation or a	igai gro	owth at the a	issessm	ent site.	)		
None										
4 01	J-41	11 .1 . 1								
ater Character	istics*: (Mark									
ODOR:		Sewage	□ Мі	usky	Chemical	<u> </u>	None	Othe	<u>r:</u>	
COLOR:		Clear	☐ G <sub>1</sub>	reen	☐ Gray		] Milky	☐ Other	r:	
BOTTOM DEPOS	SIT:	☐ Sludge	□ Sc	olids	Fine sedime	ents [	None	☐ Othe	r:	
WATER SURFAC	CE DEPOSITION:	□ Oil	□ Sc	cum	□ Foam	Ç	None	☐ Othe	r:	
						7				
omments: Pleas	se attach any ado	ditional com	ments to t	his for	n.					
This information is:	not to be used sol	elv for remov	al of a recr	eationa	l use designat	ion but	rather is	to provide	e a moi	re
mprehensive under	rstanding of water	conditions.	Consequen	tly, this	information i	is not in	tended to	directly	influen	nce a
cision on the recrea	ation use analysis	but may poin	t to conditi	ions tha	t need further	analysi	s or that	affect ano	ther us	se.
ease verify that	you have comp	leted all sec	tions, che	cked a	ll applicabl	e boxes	and th	at every	thing	is complete.
	- /. Ii		1						_	•
ırveyor's Signatu	. 17.	te propri	· · · · · · · · · · · · · · · · · · ·		Date of	f Surve	y: <i>5/</i> _	23/07- ahst		···········
ganization: A&	Solitors			Positio	n: De	14/	ales.	alist	, è	
5amzanom. /\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	A	jii wa	~ ~ ~ ~ ~ ~ ~	1 031110	<u></u>		1	erer 3.4		

February 16, 2007

Feature Type (riffle run, or pool)	12	1	10	9	&	7	თ	S <sub>1</sub>	4	ယ	2		Measurement								
	9,2	2	8.2	から	5	5.5	-	4	2.8	2	Ö	9	Distance (m)	2		Field	Averag		G	Estima	Waterb
Pool	0,0	3	0.2	0.2	0,2	0.3	0,4	Ž.	0.4	Ţ	5.0	0,1	Depth (m)	_		Field Staff:	e Strear	Horizor	UTM X:	ted Cha	ody ID:
f	9,7	2		4	6.3	で連	らって	3.6	47	1.8	_0 _0	0.0	Distance (m)	02		R. MAROTIN	Average Stream Width:	Horizontal Accuracy Estimate (GPS Data Quality):	UTM X: 0490401	Estimated Channel Incision:	Waterbody ID: <u>りんり</u> 8
Pool	0.01	-	0,3	0,6	0.4	0.6	0.5	75	\lambda \lambd	о	5	0	Depth (m)			PETIN		racy Es	1040/	sion:	00
RIFFLE	4,9	2	2.	2	S	ζ,	2.7	7,3	<u>.</u>	in	7	6.3	Distance (m)	03		4	0	timate (	; ; ;	1/0	(0
ond fin	0.0	0:1	2.0	6.0	0,2	-	-	2	0, 1	1.07	0,1	3	Depth (m)			すれ		SPS Da	UTM Y:	m) (heig	Site #:
Poo L	0.0 6	0	0	9.0	0.5	Ò	2,0	o	3.0	2,0	Š	9.0	(m) D	04		1	(me	ta Qualit	400544	(word_sum) $\frac{\angle I/O}{(m)}$ (m) (height between low bank width and water)	Site #: 0608
descending	0,0 1	12	4	50 51.0	7 0.17	0 + º	0.6	- L	かった	0.6	06	0,0	Depth (m)		-		meters)	;;  +	4	een low	
200	1.20		-20 -20	O	7	0.60	ίγ	2	3	2.2 0		0.0	Distance (m) De	05		(20x average stream width)	Length	-	•	bank wi	
2	5,	0		101 4	6 3	- س	0 2	0,12	ō	ō T.	20.1 0,	0,2 0.	Depth (m)		ransec	ge strean	of Surv			dth and	
RUN	4	0	6	8	3.60	0	260	0	0.4		6 0:		(m) Dep	06	t Cros	n width)	Length of Survey Segment:	(feet)		water)	
	0,0 0		umana umaha	en e	7	2	0.2 2.7	<i>23</i>	41.7	0.5 1.2	40	0.10	Depth (m) (		ransect Cross-Section		ent:				
Dun	-47	9	7 03	202	70,2	20,1	7 40,1	2 01	4012	2 0,2	702	0,2 0,1	(m) Depth (m)	07	on		000	)			
	12 0 0	2. F	U I S	12 13 13	2 348	3,0	2.55	2.1	2 1.65	2 1.2	2 0,75	10.3	h (m) (m)	!			(meters)				
2000	0 0	ò	2	ō n	0.7	00.2	0.4	0.5	5 0.6	0.5	5 0:3	1.0	nce Depth (m)	80							Date:
	0 © X	6.0	70 12	2,	2 4.2	3,6	W 0	7 24	1.8	1.2	30:6	o o	(m) (m)			water Lemperature:	4 -	Spec	Dissolved Oxygen:	Dissolved Oxygen:	
202	0,0	0 -	0	0, ~	0.1	0 0 1	0,2	0.2	0,2	0.2	03	0	Depth (m)	09		nperatur		oific Con	d Oxyge	d Oxyge	Disso 5/23/07
20	ال ا	120	7,6	(Q)	0.1	5,2	1.	(S)	120	2 2.0	2	0,4	(m) (m)	)				Specific Cond: 56/.0		l	solved
201	0	0, 1	0 3-1	0.	0	2 9.1	0	0	0	0	0	0	Depth (m)	10		0.	, N	~ 0	and the stands	400	Dissolved Oxygen Time:
		17	N. S.	T 00	<u>_</u>	7	4	ω .o	12	1,6	0	3 N	m) (m)	!		J (5)	ا وُ	(uS/cm)	(% sat)	_ (mg/L)	D 235
20 N	ō	ò	2	0	Č	0	0,7	0,7	6	0	0	0	e Depth (m)	1			`	<u>ਤ</u>	t)		3

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order. Transects in order of up to downstream.

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire weten with distance and depth = 0.m.

Ohne 5-24-09 M Shoto

Signed: 🛴

WBID#_	0608
Site#	4

# Data Sheet B - Site Characterization

Data & Times wheels	? 021/0		Site Location Description (e.g., road crossing):								
Date & Time: 5/23/03			HWY C BRIDGE CROSSING								
Personnel (Data Collectors):	RIMARTIN & J	. 2011.	• · · · · · ·								
Current Weather Conditions:	PARTLY CLOUD	Y	Permit Number: MO 011 9318; MO 04 815								
Weather Conditions for Past			*	<u> </u>							
D. 1. C. 122			naga III □. Phaga	IV 🗆: Unknown 🕅							
Drought Conditions?: No dro	ought $\Box$ ; Phase I $\Box$ ;	; Phase II □; Pi	iase III 🗀; Phase	IV L., UNKNOWN P							
E Locations:	IVERSAL TRANSVERSI	E MERCATOR PRO	JECTION, IN METER	RS)							
Site GPS Coordinates: UT	MX: 04003	92	Y: 44	149554							
HORIZONTAL COLLECTION ME				i.)							
	ositioning System (G	PS)		Interpolati	ion						
Static Mode  Dynamic Mode (Kinematic)				phic Map or DRG notograph or DOQQ	<del></del>						
Precise Positioning Service				Imagery							
Signal Averaging			\ <u>/</u>	ation Other							
Real Time Differential Proces	eina		/ Interpole								
HORIZONTAL ACCURACY E		12	1 :: : : :								
	GPS Data Quality			Interpolation Da	ta Quality						
FOM ±			Source	•							
EPE ±	23 Feet or ±	Meters	Source Map Scale: 1:24,000 1:100,000 Other  ± Feet or ± Meters								
PDOP	maken programme and a second of		TNoticis								
otos:	N		Dhata ID#	Dhoto Durno	se and Direction						
Photo ID# (WBID_Site#_##)	Photo Purpose and D (upstream, downstream, o		Photo ID# (WBID_Site#_##)		ownstream, other)						
0608-2-212 DOWNSTRE	AM, SITEH 2 7 ATION PIPES	reansect#1									
0608-2-218 UPSTEEN	W, SITEH2 TR	'ANSECT #1									
es Observed*: (Uses a	actually observed	d at time of su	rvey.)								
☐ Swimming	☐ Skin diving	□ scui	BA diving	☐ Tubing	☐ Water skiing						
☐ Wind surfing	☐ Kayaking	☐ Boati	ng	☐ Wading	☐ Rafting						
☐ Hunting	☐ Trapping	☐ Fishi	ng	None of the above	Other:						
Describe: (Include number o	f individuals recreati	ng, photo-docum	entation of evidence	ce of recreational uses, etc. U	se Data Sheet D- Recreational						
Use Interview when conduct	ing interviews.)										
44	J.										
rrounding Condition	S*: (Mark all that pron	note or impede recr	eational uses. Attach	photos of evidence or unusual ite	ems of interest.)						
☐ City/county parks	☐ Playgrounds	☐ MDC conse	rvation lands	☐ Urban areas	☐ Campgrounds						
☐ Boating accesses	☐ State parks	☐ National fo	rests	☐ Nature trails	☐ Stairs/walkway						
I											
☐ No trespass sign	☐ Fence	Steep slope	s	☐ None of the above	☐ Other:						
	☐ Fence	Steep slope	S	☐ None of the above	Other:						
□ No trespass sign  Comments:  ABRICULT	I	Steep slope	S	☐ None of the above	☐ Other:						

WBID#	0608
Site#	)

# **Data Sheet B - Site Characterization**

(must be completed for each site)

☐ Roads	☐ Rope swings	☐ Foot paths/prints	Dock/j	platform	☐ Livestocl	k Watering	□ RV /	ATV Tracks
☐ Camping Si	ites	☐ Fire pit/ring	☐ NPDE	S Discharge	☐ Fishing	Tackle	Othe	r:
Comments:		1						
	( 2 0 0	って						
JRR16	ATION PIPE	and the same of th						
eam Morph	ology:	~				/		
J <b>pstream V</b> i	iew's Physical De	scriptions: Is there	e any water	present at t	his view? 🔎	Yes [	] No	
		If so, i	s there an ob	vious curr	ent? ∕⊏	] Yes □	No	
	the following cha							
Channel Featur	re Transect (	#) Distance from access (m)	n Widtl	1 (m)	Length (m)	Median I	Depth (m)	Max. Depth (m)
RIFFLE		access (m)						
RUN								
POOL					\			
**************************************								
Downstream	View's Physical	<b>Descriptions:</b> Is t	here any wat	ter present	at this view?	□Yes	□ No	
			, is there an			□ Yes	□ No	
Select one of	the following cha		, is there air	oovious cc	mont.	L 163	Ц 140	
Channel Featu			idth (m)	Length (	m) M	edian Depth	(m)	Max. Depth (m
RIFFLE						History Park		
RUN								
POOL						EL CONTROL		
hetrato*: ("	Chaca volues choul	d add up to 100%.)						
<del>`</del>		% Gravel /06		entrementarios de la companya de la	% Silt	% Muc	l/Clay	% Bedi
	4-41		1 1	41 441		4 - \		
uatic vege	tation": (Note am	ount of vegetation	or algal grov	vtn at the a	issessment si	te.)		
None	PRESENT	agener <sup>a</sup>						
tor Charac	teristics*: (Mark	all that apply				,		
ODOR:	teristics, : (Wark		☐ Musky □	l Chemical	None	e 🗆 Otl	ner•	
COLOR:		(_/		_				
	TACTT.		r	Gray	☐ Mill			
BOTTOM DE				Fine sedime		<del>`</del>		
WATER SUR	FACE DEPOSITION:	□ Oil □	□ Scum □	Foam	✓ Non	e 🗆 Otl	ner:	
mments: P	lease attach any ad	ditional comments	to this form	I_				
		ditional comments			Y Ivon		iei.	
nis information	n is not to be used so	lely for removal of a	recreational:	use designat	ion but rather	is to provi	de a more	2
		er conditions. Consec						
		s but may point to co						
ase verify th	nat von have comi	oleted all sections,	checked all	l applicabl	e boxes and	that ever	vthing i	s complete.
ase verify th		//	checked an			,		o compicion
		· NAT		Date	f Survey:	5/23/0	7	
veyor's Sign	lature:	7.0		Date 0	i baivey			<del></del>
veyor's Sign	AE SOLVEIL	Ms	Position	Ballo	SPECIAL	184		<del></del>

Feature Type (riffle, run, or pool)	12	11	10	9	8	7	6	O1	4	ယ	2		Measurement								
_	7.8	 OO	なが	1.5	47	T.	-	دں دن	5.5		0,9	7.7	Distance (m)			Fiel	Averag		GFO F	Estima	Waterk
Mo C	2.0	0.2	0.4	0,5	2,0	0,4	0,4	0,2	0.2	0,3	60	0,1	Depth (m)	2		Field Staff:	je Strea	!	UTM X: Horizor	ted Cha	Waterbody ID:_
P?	3.5	6.3	か が 太	でら	7.55	*	25.00	G CO	ら近	-2	1.35	0,0 0	Distance (m)			R. Ma	Average Stream Width:		GP'S Location (taken at transect i): UTM X: <u>リザタの タタネ</u> Horizontal Accuracy Estima	Estimated Channel Incision:	8090
Pu N	Ø, O	0 -	0.2	0.3	0,3	0.2	0:2	0.2	0.2	0,2	0.7	<b>6</b> 7	Depth (m)	02		Ž.			aken at transe 0490 39⊋ al Accuracy Es	ision:	80
escending h	7	magamagama er Managama managama	0.0	2	4.00	4.7	S	N E	7.8	23	man !	0,1	Distance (m)	03		R. MARCHIN S. J. FOTH	a	Ó	ct 1): \timate (	017	
ng bank and fini	0,0	2	0	©	~	0.72	Ç3	2	2	3	0	0.1	Depth (m)	3		7			UTM Y:	(m) (hei	Site #:
Mol Pur W Washington on left descending bank and finishing on right descending bank	£3 # 	-ō co	S ce	7.2	V:35	0 N	7.65	8	2.45	2.1	ST.	2	Distance (m)	2			(n		יסמוניה (taken at transect ו): שור א: <u>ו קלילים לילי</u> UTM Y: <u>ילילילילילי</u> Horizontal Accuracy Estimate (GPS Data Quality):	(m) (height between low bank width and water)	0608 /
Poo C	0	2	0,1	7.7	9	1	- L		9	ş V	7	Carrier or promise	Depth (m)				(meters)	,	V4	/een low	0608 - 2 WBID Site#)
a bank	6	<u></u>	10.4	75	50 L	7,4	6.4	び上	7	ドニ	20	CONTRACTOR	Distance (m) [	05			Length 20x aven		-	/ bank w	ţ
	0.0		0,21	0,2 6	2,33	6.1	0,1	0.2 6	0:2	- N		3	Depth (m)		Transe	(	า of Sun age strea	;	г С	/idth and	
Run / Mou	<u> </u>	<u></u>	0.0	3	in in	S. T.	0.1	49	4	2.5	Ü	<u></u>	(m) D	06	Transect Cross-Section		Length of Survey Segment: (20x average stream width)	)	(feet)	d water)	
	Š O		7	-4	24	'n	3 0	0 -	2	2	2		Depth (m)		ss-Sec		ment: 	•			
かって		7.7		6	3000	0 m	不	r o	3000	2,7	205	114	(m) De	07	tion		Š				
	20 0	0 -	0	0,24	0 (3 H	23	0.32	0.3	S)	- 20	0,20	2	Depth (m)	2			- 1				
S	0 + 5	0 4,0	0.12	1.6 T.	R.H.	S, C	2,95 0	240	0 28:1	0	0,75	0,20	(m) De	80			(meters)	,			, ,
-	7 3	0.2 6.6	0 2 0	000	0 ~ _ _	0.7 4.0	0.23	0.2	~~udo*	012 1.4	<u></u>	2.	Depth (m)	2			Vater T₁	Sp	Dissolv	Dissolv	Date:
RON	Ó	0	0.7501	0.00	0 1.68	ļ	3,35 0,3	2,7 0,2	2,05 0/	40.7	0.75 0	0 -	(m) Dep	09			Water Temperature:	ecific Co	ed Oxy	ed Oxyo	5/23
5001	57	300	20	2.6	0.2 2.3	0,2 2.0	4-1-6	7 12	-	20.8	0,2 0.5	0 2	Depth (m) (r	2			ure:	Specific Cond: 562.0	Dissolved Oxygen: 70.0	Dissolved Oxygen: 6.62	S/07 Time:
Post/Ron	5 0,0	20:		0	W O w	100	0 2	0 3	0,5	9	5 0.4	2	(m) Depth (m)	6			00.6	67.0	10.0	162	Time:
Jan.	0 X	1	14.05	w	3.35	(N)	+	2	1.95	4	125	0	n (m) (m)		_		(၁°)	(μS/cm)	(% sat)	(mg/L)	1
Rox	0 0	4	05 0.2	7,0	35 0,2	0,2	2.65 0:2	0	6	0 -	0 - 0	0	Depth (m)	13				/cm)	sat)	<u>(</u> )	0840
	0		100	1,4	1/4	1	12	6	20000			-vilea	(m)								

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Transects in order of up to downstream.

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire wetted width distance and depth = 0m.

りなっ 5-24-00 ANS/25/07

Signed:

WBID#	0608
Site#	3

# Data Sheet B - Site Characterization (must be completed for each site)

Date & Time: 5/73	107 0945	J.	Site Location Description (e.g., road crossing):									
Personnel (Data Collectors			1/2	ROUING ROAD BRIDGE CROSSING								
Current Weather Condition			Permit Number: MO 019318; MO 004815									
Weather Conditions for Pa												
Drought Conditions?: No	drought □; Phase I □	; Phase II □	]; Phas	se III 🗆	l; Phase I	V □; Unknown 🗵						
te Locations:												
LOCATION COORDINATES (L	UNIVERSAL TRANSVERS	E MERCATOR	R PROJE	CTION,	IN METER	S)						
Site GPS Coordinates: U						46015						
HORIZONTAL COLLECTION			etermine	the loca	tional data.	) Internelati	on					
Static Mode	l Positioning System (G	PS)			Topograp	Interpolation in the Interpola	011					
Dynamic Mode (Kinematic)						otograph or DOQQ						
Precise Positioning Service	)				Satellite I	magery						
Signal Averaging					Interpolat	ion Other						
Real Time Differential Proc	essing			\								
HORIZONTAL ACCURACY	YESTIMATE											
ig sindiffuse of the s	GPS Data Quality		MÜNTA.		: No signer	Interpolation Da	ta Quality					
FOM ±_	Meters				Source	Map Scale: 1:24,000 1:100,	000 Other					
EPE ±_	Feet or ±	Meters	s 		±Feet or ±Meters							
PDOP												
notos:												
(WBID Site# ##)  0608-3.214 UP STRI  0608-3.215 DOWN					Site#_##)		ownstream, other)					
ses Observed*: (Uses	s actually observed	d at time o	of sur	vey.)		1						
☐ Swimming	☐ Skin diving		SCUBA	diving	5	☐ Tubing	☐ Water skiing					
☐ Wind surfing	☐ Kayaking		Boating	5		□ Wading	☐ Rafting					
☐ Hunting	☐ Trapping		Fishing			None of the above	☐ Other:					
Describe: (Include numbe Use Interview when condu		ng, photo-do	ocumen	tation o	f evidence	e of rècreational uses, etc. U	se Data Sheet D- Recreation					
urrounding Conditio	ons*: (Mark all that pror	note or imped	e recreat	tional us	es. Attach p	photos of evidence or unusual ite	ems of interest.)					
☐ City/county parks ☐ Playgrounds ☐ MDC				ation la	nds	☐ Urban areas	☐ Campgrounds					
☐ Boating accesses ☐ State parks ☐ Nationa			al fores	sts		☐ Nature trails	☐ Stairs/walkway					
No trespass sign Fence Steep slo					☐ None of the above ☐ Other:							
Comments:												



February 16, 2007

# Field Data Sheets for Recreational Use Stream Surveys

# **Data Sheet B - Site Characterization**

ndications of	Humar	า Use*: (at	tach photos	s)								
☐ Roads	☐ Ro	pe swings	☐ Foot path	ıs/prints	☐ Doc	k/platform	Liv	estock W	atering	□RV	/ ATV Tra	acks
☐ Camping S	ites		☐ Fire pit/ri	ng	☐ NP	DES Discharge	☐ Fi	shing Tac	kle	☐ Oth	er:	
Comments:	NONE	ş.1 }										
Stream Morph Upstream V		ysical Desc	criptions: ]	s there a	ny wate	er present at th	nis yiev	v? □ Y	es □	No		
				-	here an	obvious curre	nt?	□ Y	es 🗆	No		
Select one of Channel Featu		Transect (#	) Distai	nce from ess (m)	Wi	dth (m)	Length (	(m)	Median De	pth (m)	Max. Do	epth (m)
RIFFLE				(11)								
RUN												
POOL					1 / /							
								Same				
Downstrean	ı View's	Physical D	<b>Description</b> :	s: Is ther	re any v	vater present a	it this v	⁄iew? □	] Yes	□ No		
				If so, is	s there a	ın obvious cur	rrent?		l Yes I	□ No		
Select one of				es:			H1-1-1875-WESS-GH (1987)					
Channel Featu RIFFLE	ıre	Distance from	access (m)	Widtl	h (m)	Length (r	n)	Media	in Depth (1	n)	Max. De	epth (m)
RUN												
POOL												
Substrate*: (					0/ 0 1	T	0/ 0:14	1	0/ 3/1//	21		% Bedrock
%	Cobble	9	6 Gravel	100	% Sand		% Silt		% Mud/0	Jay		% Bedrock
Aquatic Vege	tation*:	(Note amo	unt of vege	tation or	algal g	owth at the as	ssessm	ent site.)	)			
NONE												
Vater Charac	teristic	: <b>s*:</b> (Mark a	all that appl	y.)								
ODOR:			☐ Sewage		Musky	☐ Chemical	Þ	None	☐ Othe	r:		
COLOR:			Ď Clear		Green	□ Gray		Milky	☐ Other	r:		
BOTTOM DE	EPOSIT:		☐ Sludge		Solids	Fine sedimen	nts 🗆	None	☐ Othe	r:		
WATER SUR	RFACE DE	EPOSITION:	□ Oil		Scum	☐ Foam	Y	1 None	☐ Othe	r:		
Comments: P	lease att	ach any add	litional com	ments to	this fo	m.						
This information	n is not to	o be used sole ling of water	ely for remov	val of a re-	creation ently, thi	al use designati s information is	s not in	tended to	directly	influen	ce a	
Please verify tl	hat you l	have comp	leted all sec	ctions, cl	necked	all applicable	e boxes	s and th	at every	thing	is comp	lete.
Surveyor's Sigi	nature:	Mune	Mart			Date of	Surve	y:	5/23/	り子		
Organization:	40 5	OLUTTEN	NS		Positi	on: <i>ENV</i>	St	RIK	155	<del></del>		
			muc		- 24 -	07 /	,	/ /				

Feature Type (riffle, run, or pool)	12	<u>-</u>	10	9	<u></u>	7	6	5	4	ယ	2		Measurement							***		
202	4,2	S	3.6	7.5	2%	24	20	1.6	i,	0.8	0,4	0.0	Distance (m)	2		Field	Averag	•	_	GPS Lo	] :	Waterb
**	6,0	0	0 . 1	0.2	6 3	3.2		9.2	0	0,5	0,3	0,1	Depth (m)			Field Staff:	e Strea	9	UTM X: Horizor	cation	· }	ody ID:
or pool) Rund Rund Rock Pool 1	6.3	1	Q.	\$\tilde{C}_2	ユルジ	4	Ţ,	S	Ü.	<u>.</u>	4:0	9:1	Distance (m)	02		Novice	Average Stream Widtn:		JTM X: <u> り 4 8 9 ま 7 3</u> Horizontal Accuracy Estimate (GPS Data Quality):	GPS Location (taken at transect 1):		Waterbody ID: 060%
Z	0,0	3	0.3	B14	0. /	0	0	9	0.7	3	Ġ ō	9	Depth (m)	2		_			uracy Eg	it transe		SE .
So.	O	6,7	و ش	5	-\$- 	00 1/2	5	らん	2.0	<u>-</u>	0,3	9 7	Distance (m)	03		MARTIN	and the second	Agrando Sente	stimate	(t. t)	•	
Jo 6-	0.0	9	2	Ö Ü	Ch O	ç,	9	<u></u>	4.	4.0	0,4	0, 1	Depth (m)	ω		? 7	~   J	1	(GPS Data Quality):	ct 1):		Site #:
Pool	5,8	0	いず	ログ	N	<i>S</i>	isi M	0 10	ī	Ö	\ @	0.0	Distance (m)	04		TUSTRN	(i		ata Qua	ight bet	(WBID_Site#)	0608.
\	0,0	0.	012	G.	٥ کــ	O Vi	2	0,8 8	0.3	70	Ž 20	0,2	Depth (m)	4		Fork	(meters)			ween lo	Site#)	3 3
1001	7.3	7	5.上	2	<u>.</u> a	2	23	20	12.12	J	<u>e</u>	2	Distance (m)	0		T.	Leng (20x ave	-	+-	w bank		
10	0,0	) ~	0.7	0 33	2:0	0.8	1,0	71.0	>3.0	1:0	S F	0	Depth (m)	05	Trans		erage stre		16	width ai		
~	7.O	, o	<u>5</u>	5.5	立	らって	W N	2.8	21	14	4,0	0,0	Distance (m)	06	Transect Cross-Section		Length of Survey Segment: (20x average stream width)	)	(feet)	nd wate		
000	0,0	5	7.0	¥ 5	<u>y</u>	71.0	71.0	>1.0	71.0	710	71.0	0,1	Depth (m)	6	oss-Se	,	gment: h)	<u>.</u>		2		
0.	7,2	7.0	6.3	56	2,	カオ	ν ν:	200	27	主	و لـ	Ô	Distance (m)	07	ction		100	T				
Pool	0,0	0	go O	ø0 0	71,0	72.0	ンパ	٧ آه	720	20	0.4	0	Depth (m)	7			4	S				
Z.	7.5	7.0	5.3	8.78	立	4.2	N	00 15	21	Ī	4.0	0,0	Distance (m)	08			(meters)					
Rock	o O	54	4	7.0	0114	71:0	710	V 50	740	710	- 0	410	Depth (m)	8			Wate		Diss	Diss	!	Date:
Po	7.1	0.4	S. C.	2,0	ت خ	2	N.Y	2,00	2	Ē	47 0	o O	Distance (m)	09			r Tempe	Specific	olved C	solved C		5/2
Pool	0,0	e.	V 3	7 5	75	71,0	710	2 2	740	Ö	+1 0	0,2	Depth (m)	9			Water Temperature:	Specific Cond: 561	)xygen:	Dissolved Oxygen:		Disso
B	30.5	12	7,4	6.6	00	و ش	72	in in	2.6	_ 	なる	0.2	Distance (m)	10			7.01	200	Dissolved Oxygen: 80	6 6 6 6 7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8	Ŝ	Dissolved Oxygen    /o 7   Time:
Bol	000	√ 0	<u>Y</u> ô	<u>o</u> Ā	>).o	<u>0</u>	クルク	71.0	<u>_</u>	Q3 _ G	0.4	-	Depth (m)			-		ò	İ	- 1 ~	2	<b>xygen</b> Time:
100 100	4,3	<u></u>	- Tr	4	is is	W.A.	3.6	2,9	22	N	0.8	Ó	Distance (m)	11			(°C)	_(µS/cm)	_(% sat)	_ (mg/L)		0648
( )	0	4	71:0	<u>°</u>	٧ 5	くる	<u>٧</u> ة	71.0	7.0	9 7	9,4	0,1	Depth (m)									\

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Transects in order of up to downstream.

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1

Measurement 1 depth = 0.1m (unless depth is insufficient), Measurement 11 depth = 0.1m (unless depth is insufficient), Measurement 12 distance = entire wetted width distance and depth = 0m.

Signed: Buc 5-24-00 Date: 5/23/07

WBID#_	0608
Site#	4

# **Data Sheet B - Site Characterization**

		•	•		,					
Date & Time:	1/23/07 /025		Site Location Description (e.g., road crossing):							
	lectors): P.Martin : J. Fe	iek	200 W	DOWNS	STREAM ROLLING ROA	H) BRIDGE (1265	SING			
Current Weather Con	nditions: P. Cloudy		Permit Number: MO 911 9318; MO 0048151							
	for Past 10 days:	Nurs	1 CHINE	tumber. (*	10 11 1010, 110	<u> </u>				
	: No drought □; Phase I □		· Phace III	Dhace	IV []: Unknown []/	****				
	. No drought 🗀, Thase T 🗀	, I llase II L	, I mase m	L., i nasc	IV LI, UIKIIOWII LY					
ite Locations:	ATES (UNIVERSAL TRANSVERS	E MERCATOR	PROJECTION	N. IN METER	PS)					
	ntes: UTM X: 44957			····	446039		13505-1950-0-1950-1950-1950-1950-1950-1950			
	CTION METHOD (Indicate the me		termine the lo		· · ·					
	Global Positioning System (G	PS)		e de la companya de l	Interpola	tion				
Static Mode			-/		phic Map or DRG		- (			
Dynamic Mode (Kine			+	1	notograph or DOQQ		-			
Precise Positioning S	Service			Satellite			X_			
Signal Averaging				Interpola	tion Other		/ 1			
Real Time Differentia	I Processing									
HORIZONTAL ACCU	JRACY ESTIMATE					The Section of the Se				
300 miles (1990 mi	GPS Data Quality				Interpolation Da	ata Quality				
FOM	±Meters			Source	Map Scale: 1:24,000 1:100	.000 Other	594;			
EPE	± 17 Feet or ±	Meters		± Feet or ± Meters						
PDOP	all the second and th					IVICIOIS				
hotos:										
Photo ID#	Photo Dumoso and D	iraction	Dh	oto ID#	Dhoto Dumo	ose and Direction				
(WBID_Site#_##)	Photo Purpose and D (upstream, downstream, o		I I	D_Site#_##)		downstream, other)				
0608-4-216 UF	STREAM, SITE #4; TI	4NSECT L	and the second							
0608-4-217 100	WNSTREAM, SITE DIH	TRANSEC	144							
ses Observed*:	(Uses actually observed	d at time of	f survey.)							
☐ Swimming	☐ Skin diving		CUBA divir	ıg	☐ Tubing	☐ Water skiii	ıg			
☐ Wind surfing	☐ Kayaking	□в	oating		□ Wading	☐ Rafting				
☐ Hunting	☐ Trapping		ishing		None of the above	Other:				
	number of individuals recreati conducting interviews.)	ng, photo-doc	cumentation	of evidence	é of recreational uses, etc. U	Jse <i>Data Sheet D- F</i>	<i>Recreationa</i>			
urrounding Con	ditions*: account				161	6: 4				
	ditions*: (Mark all that pror	note or impede	recreational t	ises. Attach						
☐ City/county park	☐ City/county parks ☐ Playgrounds ☐ MDC c				☐ Urban areas	☐ Campgrou	nds			
☐ Boating accesses	l forests		☐ Nature trails	☐ Stairs/wall	way					
☐ No trespass sign	☐ Fence	Steep sl	opes		☐ None of the above	☐ Other:				
Comments:		,								

WBID#	0608
Site#	4

# **Data Sheet B - Site Characterization**

ications of Human Use*: (at	tach photos)			_		7	
☐ Roads ☐ Rope swings	☐ Foot paths/prin	ts 🗆 Doc	k/platform	☐ Livesto	ock Watering	□ RV	/ ATV Tracks
☐ Camping Sites	☐ Fire pit/ring	□ NPI	DES Discharge	☐ Fishin	g Tackle	☐ Othe	er:
Comments:							
eam Morphology: Upstream View's Physical Des	_		er present at the			] No ] No	
Select one of the following char Channel Feature Transect (#	Distance from	l l	dth (m)	Length (m)	Median I	Depth (m)	Max. Depth (m)
RIFFLE	access (m	)	- $*$				
RUN			<del>-/ -</del>	<del>\</del>			
POOL			/	77			
Select one of the following char Channel Feature Distance from	nnel features:	Width (m)	n obvious cu  Length (		☐ Yes  Median Depth	□ No (m)	Max. Depth (m)
RIFFLE Distance from	n access (m)	widin (m)	Length (	m)	Median Depth	(m)	Max. Depin (m)
RUN							
POOL							
bstrate*: (These values should	add up to 100%	.)					
% Cobble 9	% Gravel / / ()	// % Sand	And the second s	% Silt	% Muc	l/Clay	% Bedro
uatic Vegetation*: (Note amo	ount of vegetation	n or algal gr	owth at the a	ssessment	site.)		
ter Characteristics*: (Mark	all that apply.)						
ODOR:	☐ Sewage	☐ Musky	☐ Chemical	Ďίνο	one 🗆 Otl	ner:	
COLOR:	Clear	☐ Green	□ Gray		filky $\square$ Oth	ier:	
BOTTOM DEPOSIT:	☐ Sludge	☐ Solids	Fine sedime	ents 🗆 No	one 🗆 Otl	ner:	
WATER SURFACE DEPOSITION:	□ Oil	☐ Scum	☐ Foam	M N	one □ Otl	her:	
	1.4.	1 - 4 - 41 - C					
his information is not to be used sol mprehensive understanding of water cision on the recreation use analysis ease verify that you have comp	ely for removal of conditions. Cons but may point to c	a recreations equently, this conditions the	al use designat s information i at need further all applicabl	is not intend analysis or <b>e boxes ar</b>	ded to directly that affect are that affect are that ever	y influen nother us ything	se.
rveyor's Signature: ////////////////////////////////////	Mat		Date of	f Survey:_	5/23/8	7	
ganization: AE SOLUTION	<u> </u>	Positio	on: <u>ENV</u>	SPECI	ALIST		
February 16, 2007	hwc 5	-24-01	7 Off	3/25	107		

Feature Type (riffle, run, or pool)	12	<del>-</del>	10	9	&	7	6	S <sub>1</sub>	4	ယ	2	_	Measurement								
	_0 0	5	n R	S)	き	5	58.5	4	3	Ī	24.0	0, F	Distance (m)			Fie	Avera		Estima GPS L	Water	
rts will be mea	0	9	3	4 0	0,4	Q   	<u>a</u>	jas O	Ö	4.0	0.0	9	Depth (m)	3		Field Staff:	ge Strea	UTM X: Horizon	ated Cha	body ID	
Transacts will be measured heatinging on left descending bank and finishing on gight descending bank	41	らた	15.50	S)	07	トト	いた	0.Y	273	J. W	0.0	0,2	Distance (m)			R	Average Stream Width:	JTM X: 489577 UTM Y: 44466 Horizontal Accuracy Estimate (GPS Data Quality):	Estimated Channel Incision: GPS Location (taken at transect 1):	Waterbody ID: <u>060</u> €	
Pool	0.0	O	3	00	50	0,9		0,3	0,6	5,6	دن د	a, 1	Depth (m)	02		2, MARETIN	): 	189577 Ital Accuracy E	cision: at trans	Ã	
descending	2,0	4	5,00	5	J. T.	ナン	0,7	n n	2.6	<u>~</u>	7	0,5	Distance (m)			8	4)	stimate	ect 1):	,	
D & Common file	0.0	0	8-3	2,0	0,5	0,4	0.4	0.3	0.3	013	0.2	2	Depth (m)	ಜ		7	N	UTM Y:	_ (m) (he	Site #:	
nishing on r	<i>Q</i> <sup>1</sup>	S S	75	Ç.	S. S. S.	N 	4.25	S	2.55		0,95	ġ.	Distance (m)			47.0		Data Qu	(m) (height between low bank width and water)	5	
n right descen	0.0	2	9	Z o	7	スパ	Ž Ž	0.17	71:0	71.0	770	0,4	Depth (m)	04			(meters)	ata Quality): +	tween l	0608 - * VBID_Site#)	
ding hank	10,3	507	<i>i</i> ,	607	7.2	6.2	30	4,2	3.2	2.2	1,2	0,2	Distance (m)			(20x av	•	+	ow bank	1-4	/
o ot	0,0	0	0.6	3,6	9 R	0,4	4	20	4.0	0,5	0,4	0,1	Depth (m)	9	Tran	(20x average stream width)	Length of Survey Segment:	Constant 2	( width a		
70	2	0.0	N. P	0,14	Ś	(v)	57	2.0	- (J)	ō	0,5	0,0	Distance (m)		Transect Cross-Section	ream wic	urvey S	(feet)	and wat		
	,o 0	9	Ġ.	9	6 0	0.7	o ·	0	0.2	012	8. 1	0	Depth (m)	06	ross-S	Ith)	egment	<b> </b>	er)		
	7.0	<u>e</u>	ري دي دي	S) S)	I S	ر ن	73 73 73 73	2	2.98	Ē	0,75	011	Distance (m)		ection		No. of Concession				
Run	0,0	0	0	6.5	6	2.2	2.0	0.2	0,2	1,0	0.2	011	Depth (m)	07		·	S				
U.S	Ö	9.6	29.82	7.70	57.5	00 iQ	4,85	o vi	29.57	2,0	405	0, (	Distance (m)				(meters)				
Roll	ō	Q.	0	0,3	0,2	0	0	から	ا ان ان	7	410	0, {	Depth (m)	8		Wat		<u>D</u>	<u>D</u>	Date:	
F	8,8	iv co	ンジの	6.0	S, 20	3	4.25	3	2,55	-	0,85	0,0	Distance (m)			er Temp	Specif	solved	ssolved	l Com	
Book	0,0	011	5.0	0.2	0	2.2	0.2	013	D: C	0,4	5.0	0,4	Depth (m)	09		Water Temperature:	specific Cond:	Dissolved Oxygen:	Dissolved Oxygen:	10 m	Diss
71	† ©	C. U	9 88	5	2	ال ا	73	2,6	- 22.7	-33	0,65	0,0	Distance (m)					1	1	43	Dissolved Oxygen
Pool		0	0	1.01	G	iv)	ر ا ا	Ť Ĝ	t 0	5	0.5	0,	Depth (m)	6		7		200	5	Time:	Oxyger
-	デ	ال الا	J.	I.	上	S. C:	7	10 10	5	-2	1,4	0,9	Distance			_(°C)	_ (µs/cm)	_(% sat)		1025	
200	0	© 	0,3	2 J	0,3	0.3	0,3	0.7	'n	0	01	9,1	Depth (m)	<u> </u>						25	

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Transects in order of up to downstream.

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire\_wetted width distance and depth = 0m.

Signed: Mul Mut Date: 5/83/07

Buc 5-24-07

WBID#_	0608
Site#	Z)

# **Data Sheet B - Site Characterization**

Date & Time:	5/12/	07 110	· Carrier	Si	te Location Des	cription (e.g., road crossing):				
Personnel (Data		RIMARTING 5		H00	om Downs CROSSING	TREAM POLLING RO	AN BUPGE			
Current Weather			J - 12 -	Fa	cility Name: A	UBURN HILLS MOIT	F- MILAN WWTP			
		10 days: /////	mal	FC	mint Number.	100111318; MO	1 019 1900			
		, , , , , , , , , , , , , , , , , , ,								
Drought Condition	ons?: No dr	ought ∐; Phase I L	I; Phase II L	J; Phas	se III □; Phase	IV □; Unknown □				
ite Locations:		IVERSAL TRANSVERS	SE MERCATOI	R PROJE	ECTION, IN METEI	RS)				
Site GPS Coor	dinates: UT	MX: 48952	21		Y: 4	445846				
HORIZONTAL CO		ETHOD (Indicate the me		etermine	the locational data	1.)				
00-11-14-1-	Global F	Positioning System (G	SPS)	01.10.10.10.10.10		Interpola	tion			
Static Mode  Dynamic Mode (I	Kinematic)			+++		Topographic Map or DRG Aerial Photograph or DOQQ				
Precise Positioni				+		Imagery	<del></del>			
Signal Averaging				+	X	ation Other	<del></del>			
<u> </u>				+/	interpola	adon Onlei				
Real Time Difference				1/_						
HORIZONTAL A		STIMATE  GPS Data Quality				Interpolation Da	ata Quality			
FOM	1 ±	Meters	3				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
EPE	±	19 Feet or ±		S	Source	Map Scale: 1:24,000 1:100				
PDOP					**************************************	±Feet or ±	Meters			
				,						
notos:						<u> </u>				
Photo ID# (WBID_Site#_##)		Photo Purpose and D (upstream, downstream,			Photo ID# (WBID_Site#_##)		ose and Direction downstream, other)			
0608-5-218	UPSTREE	M, SITE #5;	TEANSECT	41						
D/008 5.219	Donnerd	eallighte HS	TRANSE	ス型						
			,							
ses Observed	i*: (Uses 2	ictually observe	d at time o	of surv	vey.)					
☐ Swimming		☐ Skin diving		SCUBA	diving	☐ Tubing	☐ Water skiing			
☐ Wind surfing	5	☐ Kayaking		Boating		☐ Wading	☐ Rafting			
☐ Hunting		☐ Trapping		Fishing		None of the above	☐ Other:			
Describe: (Inclu Use Interview w			ing, photo-do	cument	ation of evidenc	e of recreational uses, etc. U	ise Data Sheet D- Recreation			
ı <u>rrounding C</u>	ondition	S*: (Mark all that pro	mote or imped	e recreat	ional uses. Attach	photos of evidence or unusual it	ems of interest.)			
☐ City/county	parks	☐ Playgrounds	☐ MDC c	onserva	ation lands	☐ Urban areas	☐ Campgrounds			
☐ Boating accesses ☐ State parks ☐ National				al fores	ts	☐ Nature trails	☐ Stairs/walkway			
☐ No trespass s	ign	☐ Fence	Steep s	lopes		☐ None of the above	☐ Other:			
Comments:			• • • •							

WBID#	0608
Site#	Dy.

# **Data Sheet B - Site Characterization**

Indications of H	uman Use*: (a	ttach photos)	)					
☐ Roads	☐ Rope swings	☐ Foot paths/	/prints 🗆	Dock/platform	☐ Liv	estock Wate	ering RV	/ / ATV Tracks
☐ Camping Sites		☐ Fire pit/ring	g 🗆	NPDES Discharg	ge 🗆 Fis	shing Tackle	□ Ot	her:
Comments:	NoNE							
Stream Morphol	oav:							
•	v's Physical Des	criptions: Is	there any v	vater present a	t this view	v? □ Yes	s □ No	
		If	so, is there	an obvious cu	rrent?	□ Yes	□ No	
	e following cha			W. M.	r .3.7	· \ 1 14	H. D. d. (	N D d ( )
Channel Feature	Transect (#	#) Distance access	1	Width (m)	Length (	m)   Me	edian Depth (m	) Max. Depth (m)
RIFFLE								
RUN				/				
POOL								
Downstream V	iew's Physical I			y water preser re an obvious		riew? □ Y □ Y		
Select one of th	e following cha			ic all obylous	cuirent?	LI	CS LI INC	
Channel Feature	Distance from		Width (m)	Lengt	h (m)	Median I	Depth (m)	Max. Depth (m)
RIFFLE								
POOL								
Substrate*: (The % Col	bble 9	% Gravel	/00 % S		% Silt	L	Mud/Clay	% Bedrock
	tiotioo*! (Maul-	-11 4141 `	`					<u> </u>
Water Character	isucs : (Mark	an that appry.  ☐ Sewage		Па:		,	7.04	
COLOR:		Clear	☐ Musk				Other: Other:	
BOTTOM DEPO	SIT:					-		
	CE DEPOSITION:	Sludge				4	Other:	
WATER BOIL A	——————————————————————————————————————	□ Oil	☐ Scum	☐ Foam		None [	Other:	
Comments: Plea	se attach any add	ditional comm	ents to this	form.				
*This information is comprehensive unde decision on the recre	rstanding of water	conditions. Co	onsequently,	this information	n is not inte	ended to di	rectly influe	nce a
Please verify that	you have comp	leted all şeçti	ons, check	ed all applica	ble boxes	and that	everything	is complete.
Surveyor's Signatu	///	- Mai	A.	Data	- <b>C</b> C	5/2	2/12	
Organization:	ALSOLUTI	4/5	Po	sition: <u>EN</u> V	4 Spe	CLALL.	S. S	
February 16	5, 2007	Auc	5-2		AK	5/23	157	

Date: 6/23/07 Time:  Date: 6/23/07 Time:  Dissolved Oxygen: 6,38  Dissolved Oxygen: 6,38  Specific Cond: 571  Water Temperature: 19,7  Depth (m) (m) Depth (m) (m) Depth (m)  O: 7 0:85 0:7 1:3 0:8  O: 7 1.7 0:8 0:3 1:3 0:8  O: 1 7.65 0:7 1:3 0:9  O: 1 7
Dissolved Oxygen   10   1/2

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order. Transects in order of up to downstream.

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire wetted width distance and depth = 0m.

Signed: 250 Date: 5/22/02

WBID#	0608
Site#	la

# **Data Sheet B - Site Characterization** (must be completed for each site)

Date & Time: 5/2	3/07 1230	S	Site Location Description (e.g., road crossing):								
Personnel (Data Collecte	ors): PIMERTINE	J. Foth S	SILVER ROAD								
	ions: P. CLOUDY		Facility Name: AUBURN HILLS WWIF; MILAN WWIP Permit Number: MO OIR 318; MO OUTS 151								
Weather Conditions for		KNOWN		*							
Drought Conditions?: N	lo drought □; Phase I □	l; Phase II □; Ph	ase III □; Phase	IV □; Unknown □							
e Locations:											
	S (UNIVERSAL TRANSVERS	SE MERCATOR PRO									
Site GPS Coordinates	:UTM X: 04893	7-1	Y: 44	42728							
***************************************	ON METHOD (Indicate the me		ne the locational data								
	bal Positioning System (G	SPS)		Interpolat	ion						
Static Mode  Dynamic Mode (Kinemat	io)			phic Map or DRG notograph or DOQQ							
Precise Positioning Serv			Satellite		X						
Signal Averaging			/	tion Other	<del></del>						
	roccoina	<del></del>	Interpola		L						
Real Time Differential Pr	-	/_	I a maria								
HURIZONTAL ACCURA	GPS Data Quality			Interpolation Da	ta Quality						
FOM :	± Meters										
	± 2 Feet or ±	Meters	Source Map Scale: 1:24,000 1:100,000 Other								
PDOP	MARKET COMPANY CONTROL OF CONTROL			±Feet or ±	Meters						
otos:	Di Di In			DI . D	1.D.						
Photo ID# (WBID Site# ##)	Photo Purpose and D (upstream, downstream,		Photo ID# (WBID_Site#_##)	se and Direction							
	VSTREAM; SITE #										
es Observed*: (Us	ses actually observe	d at time of su	rvey.)								
☐ Swimming	☐ Skin diving	□ scub	A diving	☐ Tubing	☐ Water skiing						
☐ Wind surfing	☐ Kayaking	☐ Boatin	g	☐ Wading	☐ Rafting						
☐ Hunting	☐ Trapping	☐ Fishin	g	None of the above	☐ Other:						
Use Interview when cor	nducting interviews.)			e of recreational uses, etc. U							
☐ City/county parks	☐ Playgrounds	MDC conser		Urban areas	Campgrounds						
☐ Boating accesses	☐ State parks	□ National fore		☐ Nature trails	☐ Stairs/walkway						
	☐ Fence	Steep slopes		□ None of the above	Other:						
☐ No trespass sign		3/  Staan alamaa									

WBID#	0608
Site#	6

# **Data Sheet B - Site Characterization**

dications of Huma	n Use*: (at	tach photos)				,		
□ Roads □ R	ope swings	☐ Foot paths/prir	nts 🗆 Do	ck/platform	☐ Livestocl	k Watering	□RV	/ ATV Tracks
☐ Camping Sites	<i>y</i>	☐ Fire pit/ring	□ NF	DES Discharge	☐ Fishing	Tackle	☐ Oth	er:
Comments:							-	
	None	?						
ream Morphology	•			A				
		auintiana. Ia tha	ana langu susat	or propert at th	nia viore? - [	J Vog ⊢	∃ No	
<b>Upstream View's P</b>	nysicai Des	•	\ _	- /				
Select one of the fol	llowing char		, is there ar	obvious curre	ent?	] Yes □	l No	
Channel Feature	Transect (#		om W	idth (m)	Length (m)	Median I	Depth (m)	Max. Depth (m)
RIFFLE		access (m	1)	$\times$				
RUN			-+					
POOL			/_					
<u> </u>			7/	L			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Downstream View'	e Dhysical T	<b>)</b> accrintiance Tc	there any	water precent (	at this view?	□ Vec	□ No	
Downstream view	S I HYSICAL I							
Select one of the fol	llowing cha		so, is there	an obvious cu	rrent?	□ Yes	□ No	
Channel Feature	Distance fron		Width (m)	Length (	m) Mo	edian Depth	(m)	Max. Depth (m)
RIFFLE								
RUN								
POOL								
ıbstrate*: (These v	alues should	add up to 100%	5.)					
% Cobble			の % Sand	Organic State Control of the Control	% Silt	% Muc	l/Clay	% Bedrock
quatic Vegetation*	(NInto amo	vet of vectories		warrith at the a	aaaaamaant ai	+a \		
luatic vegetation	. (Note allo	uni or vegetation	ii or argar g	rowin at the as	SSESSITICITE SI	16.)		——————————————————————————————————————
Now	E			way				
ater Characteristi	cs*: (Mark a	all that apply.)						
ODOR:		☐ Sewage	☐ Musky	☐ Chemical	None	e 🗆 Otl	ner:	
COLOR:		Clear	☐ Green	☐ Gray	☐ Mill		ier:	
BOTTOM DEPOSIT:		☐ Sludge	☐ Solids	∑ Fine sedime	ents 🗆 None	e 🗆 Otl	ner:	
WATER SURFACE D	EPOSITION:	□ Oil	☐ Scum	☐ Foam	Non	e 🗆 Otl	ner:	
omments: Please at	tach any add	litional commen	ts to this fo	orm.				
This information is not t	o be used sole	elv for removal of	a recreation	nal use designati	ion but rather	is to provi	de a moi	·e
mprehensive understan	ding of water	conditions. Cons	equently, th	is information i	s not intended	d to directly	y influen	ce a
cision on the recreation	use analysis	but may point to	conditions th	nat need further	analysis or th	at affect ar	nother us	se.
ease verify that you	have comp	leted all șection	s, checked	all applicable	e boxes and	that eyer	ything	is complete.
arveyor's Signature:_	1/1/1/12	Mart		Date of	f Survey:	5/23	107	
rganization: AE	Colvi	tims	Posit	ion: ZNV	-	12/154	/ 	
5 1 0	was a bran b	and c	T 0311 5 - 24			The same of		
February 16, 20	07	V 1 4 € /	0 - 4	7 ~ 0 " /	GAR.	2/24/	7	

	Notes:	Feature Type (riffle	12	<u>_</u>	10	9	8	7	o.	ڻ. ن	4	ယ	2		Measurement									
	_	0		ひひ	5.5	00	2 (N	ログ	N. C.	<i>6</i>	25	2.0	1.5	1,6	Distance (m)	2		Field	Averag		GPS Lo	Estimat	Waterbody ID:	
GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order. Transects in order of up to downstream.	Transects will be measured beginning on left descending bank and finishing on right descending bank.	2.1	0:0	9 . 1	0,1	6.0	6,0	€! (V	う プ	119	017	0,1	0	0,0	Depth (m)	_		Field Staff:	Average Stream Width:	Horizon	GPS Location (taken at transect 1):  UTM X: 048987	Estimated Channel Incision:	ody ID:	
nds to Transe to downstre	Jred beginni	11.19	5,3	4	425	00	3.35	7.7	2.5	2,0	- Si		0,65	0,2	Distance (m)	02		TV.	n Width:	tal Accu	taken at	nel Inci	8090	
ect 01. Trans am.	ng on left de	<i>\</i>	0.0	0	0:7	0,1	0.1	0,2	0,2	0 7	0,2	0,2	1011	0	Depth (m)			N. MARTIN		racy Est	transec	sion:	86	
ects ordered	scending bank	5	12 23	(7)	<u>\$</u>		36	3.1	2.6	21	1.6		0,0	0, 10	Distance (m) D	၀ၗ		A.	. N	imate (G		(r	S	
in upstream	k and finish	in the second	0.0	-41 	<u> </u>	CV	27,	ins vinitus	ology Kennya	2	37	<u></u>	0 7 0	ing contribução	Depth (m)			7		PS Data	UTM Y: _≤	n) (heigh	Site #:	
to downstre	ng on right o		720	a constraint	2	7 0)	0.0	430	1 N.C	0	22 0	ة اي	0,800	0 - 0	Distance (m) De	04		17.074	(me	Horizontal Accuracy Estimate (GPS Data Quality):	44427	(WBID_Site#) (m) (height between low bank width and water)	80%	
am order.	escending t	Sec.	4.8 0.0	0.a	±7   5   5	5	ر ان ان	$t_{\gamma}$		3	9		0	* O	Depth (m) (			F	(meters) I	<u>ڊ</u> †	200	#) en low b	0	٥
•	vank.	77 2 3	6 4	0	is a	Sin	50 4 10	2 0 0	-	is O	275 0,	0 4:	Б	0	(m) Depi	05		(Fox groups on our man)	Length of Survey Segment:	Jane Land		ank wid		
	F		0 0	3	20	- 26	123	1 2.0		1,1		20.8	2.0	102	Depth (m) (m)		ansect	000	of Survey	(fe		th and w		
200		1	0	20.	0 3	Ô	Ö	ğ	107	0	9	0,6	5003	301	Depth (m)	06	Cross		/ Segme	(feet)		ater)		
gar.		and the same of th	0	6.	55	1 P P	7 43	3 37	150	10 12 14	- i Q	- w	0 4	01	(m) (m)	2	Transect Cross-Section							
	ě ě	7000	0.0	O	01.5	0	8 3	0,3	C	2	0,4	9:4	013	0:-	Depth (m)	97	3		160					
	1		4.7	S		2.7	ジエ	72	7.00	-	72	0.9	0.6	0,70	m) (m)	2			(meters)					
-	4		0,0	0,1	0	Ğ	01	Š	012	0	6	0,3	0 ,	0	Depth (m)	8					Dis	Dis	Date:	
	100	77	12 12	7.7	2,45	2,2	1.95	7.	三六	シ	250	0.7	0.45	0,2	(m)			•	Water Temperature	Specifi	Dissolved Oxygen:	Dissolved Oxygen:	5/53	
	198	5. 	0 - 0	<u> </u>	Q	0	0,2	5,0	20	0,5	\ 0 0	, O	0	0.	Depth (m)	09			erature.	Specific Cond:	)xygen:	)xygen:	5/53/67	Disso
	4	Ø,	a a	5.2	7	4.2	4	3,2	2.7	2.2	1-1-	-2	D; **	0.2	(m)	10		1	いらい	5000	67,3	U)		Dissolved Oxygen
		2	o O	<u></u>	0 14	<u>ه</u>	JV 0	2:0	N P	<u>t</u>	(v)	0	S	0	Depth (m)			1			1	0-0-	Time:	cygen
		1200	ON Sec	9	ia.	2.5		3.6	<u></u>	e 170	2	5	T	0,6	(m) E	11			(ကို	(µS/cm)	(% sat)	(mg/L)	本	
		C.	o O	0	0,2	0.2	ر د	0,5	0 3	0,2	0.2	0,2	0,2	0	Depth (m)								Pm	

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as <1

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire wetted width distance and depth = 0m.

Signed: \_\_\_

and 5-2407 My Shes 10

WBID#	0608
Site#	pay and

# **Data Sheet B - Site Characterization**

			•								
Date & Time: 5/23/	07 1300				ription (e.g., road crossing):						
Personnel (Data Collectors):	R. MARTIN & T.	FOTH	200 (11		THE THE THE PARTY OF THE	art art					
Current Weather Conditions:			Facility Permit N	Permit Number: MO 6119318; MO 646151							
Weather Conditions for Past	10 days: UNENOU	WN									
Drought Conditions?: No dro	ought □; Phase I □; Pl	hase II □;	Phase III	□; Phase I	V □; Unknown Þ						
Site Locations:	IVERSAL TRANSVERSE MI	ERCATOR P	ROJECTION	I, IN METER	S)						
Site GPS Coordinates: UT	MX: 0489418			Y: 4	44 2597						
HORIZONTAL COLLECTION MI	ETHOD (Indicate the method		rmine the lo		)						
Static Mode	Positioning System (GPS)	<u> </u>		Topogran	Interpolation Interpolation Interpolation	on ·					
Dynamic Mode (Kinematic)			√ /		otograph or DOQQ						
Precise Positioning Service				Satellite I	magery	X					
Signal Averaging	-			Interpola	tion Other						
Real Time Differential Proces											
HORIZONTAL ACCURACY E											
. A \$ 450 M (200 )	GPS Data Quality				Interpolation Date	a Quality					
FOM ±	Meters			Source	Map Scale: 1:24,000 1:100,0	000 Other					
EPE ±	27     Feet or ±	Meters			±Feet or ±_	Meters					
PDOP	www.common.or				±1 ccc or ±_	WOOOTO					
Photos:						1.51					
Photo ID# (WBID Site# ##)	Photo Purpose and Direc (upstream, downstream, other)			oto ID# D_Site#_##)		e and Direction					
0608-7-222 UPSTREAD			l l								
Jses Observed*: (Uses a	actually observed a	t time of	survey.)								
☐ Swimming	☐ Skin diving	□ sc	UBA divin	g	☐ Tubing	☐ Water skiing					
☐ Wind surfing	☐ Kayaking	□ Во	ating		□ Wading	☐ Rafting					
☐ Hunting	☐ Trapping	☐ Fis	hing		None of the above	☐ Other:					
	f individuals recreating,	photo-docu	imentation	of evidence	of recreational uses, etc. Us	se Data Sheet D- Recreational					
Surrounding Condition	S*: (Mark all that promote	or impede re	ecreational u	ıses. Attach ı	photos of evidence or unusual ite	ms of interest.)					
☐ City/county parks		MDC con			☐ Urban areas	☐ Campgrounds					
☐ Boating accesses	☐ State parks ☐	] National	forests		☐ Nature trails	☐ Stairs/walkway					
☐ No trespass sign	☐ Fence	Steep slo	pes		☐ None of the above	☐ Other:					
Comments:	elhr										

WBID#	408
Site#	1

# Field Data Sheets for Recreational Use Stream Surveys

# **Data Sheet B - Site Characterization**

	n Use*: (at					T_
□ Roads □ Ro	ope swings	☐ Foot paths/prin	ts Doo	ck/platform	☐ Livestock Watering	□ RV / ATV Tracks
☐ Camping Sites			□ NP	DES Discharge	☐ Fishing Tackle	☐ Other:
Comments:	Control of the Contro					
A	lONE					
eam Morphology:						
						, T
Upstream View's Pl	nysicai Desc	_	1	-		□ No
Colore one of the fall	lovvina abav		is there an	obvious curren	ot? □ Yes [	□ No
Select one of the following Channel Feature	Transect (#)		om Wi	idth (m) I	Length (m) Median	Depth (m) Max. Depth (m)
DIEELE		access (m	1	$\longrightarrow$		
RIFFLE RUN	184444444444					
POOL						
1000						
Downstream View's	n Dhysiaal D	voor <del>in</del> tions To	thana any n		t this sisses D Was	
Jownstream views	s Filysical D		•	•		□ No
N.J 4	Y		o, is there a	ın obvious cun	rent?   Yes	□ No
Select one of the following Channel Feature	Distance from		Vidth (m)	Length (m	ı) Median Depth	n (m) Max. Depth (m)
RIFFLE						A Carlo
RUN						
POOL						
bstrate*: (These va	alues should	add up to 100%	)			
% Cobble		Gravel 9			% Silt  % Mu	d/Clay % Bedroc
	- 01 4		-	.31		
uatic Vegetation*	: (Note amo	ant of vegetation	or algal gr	owth at the ass	sessment site.)	
ter Characteristic	: <b>s*:</b> (Mark a	Il that apply )				
ODOR:	i (ivianic a		☐ Musky	☐ Chemical	✓ None □ Ot	har
	~~~~			Li Chemicai	MONE LI OI	Hei.
COLOR:		\ <b>\</b> \ <b>\</b> \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	По			
COLOR:	417114111111111111111111111111111111111	/	☐ Green	☐ Gray	☐ Milky ☐ Otl	
BOTTOM DEPOSIT:	A44444	<del></del>		Gray Fine sedimen		
	EPOSITION:	□ Sludge		P e		her:
BOTTOM DEPOSIT: WATER SURFACE DE		□ Sludge □ Oil	☐ Solids ☐ Scum	Fine sediment	ts None Ot	her:
BOTTOM DEPOSIT: WATER SURFACE DE		□ Sludge □ Oil	☐ Solids ☐ Scum	Fine sediment	ts None Ot	her:
BOTTOM DEPOSIT:  WATER SURFACE DE  mments: Please att  is information is not to	ach any add	☐ Sludge ☐ Oil itional comment	☐ Solids ☐ Scum  s to this for a recreationar	Fine sediment Foam m. al use designatio	ts None Ot	her: her:
BOTTOM DEPOSIT:  WATER SURFACE DE  mments: Please att  is information is not to  prehensive understand	ach any add to be used sole ling of water	☐ Sludge ☐ Oil itional commentally for removal of a conditions. Conse	☐ Solids ☐ Scum  s to this for a recreation a requently, this	Fine sediment Foam  m.  al use designation is	ts None Ot	her: her: ide a more y influence a
BOTTOM DEPOSIT:  WATER SURFACE DE  mments: Please att  is information is not to  prehensive understand	ach any add to be used sole ling of water	☐ Sludge ☐ Oil itional commentally for removal of a conditions. Conse	☐ Solids ☐ Scum  s to this for a recreation a requently, this	Fine sediment Foam  m.  al use designation is	ts None Ot	her: her: ide a more y influence a
BOTTOM DEPOSIT:  WATER SURFACE DE  mments: Please att  is information is not to  prehensive understand ision on the recreation  ase verify that you	ach any add to be used sole ling of water use analysis b	☐ Sludge ☐ Oil itional commentally for removal of a conditions. Consecut may point to contend all sections	Solids Scum Sto this for a recreation acquently, this conditions that a checked is checked.	Fine sediment Foam  The sediment Foam   ts None Ot  None Ot  None Ot  n but rather is to provinot intended to directle nalysis or that affect a	her: her: ide a more y influence a nother use.	
BOTTOM DEPOSIT:  WATER SURFACE DE  mments: Please att  is information is not to  prehensive understand ision on the recreation  ase verify that you	ach any add to be used sole ling of water use analysis b	☐ Sludge ☐ Oil itional commentally for removal of a conditions. Consecut may point to contend all sections	Solids Scum Sto this for a recreation acquently, this conditions that a checked is checked.	Fine sediment Foam  The sediment Foam   ts None Ot  None Ot  None Ot  n but rather is to provinot intended to directle nalysis or that affect a	her: her: ide a more y influence a nother use.	
BOTTOM DEPOSIT:  WATER SURFACE DE  mments: Please att  is information is not to  prehensive understand ision on the recreation  ase verify that you	ach any add to be used sole ling of water use analysis b	☐ Sludge ☐ Oil itional commentally for removal of a conditions. Consecut may point to contend all sections	Solids Scum Sto this for a recreation acquently, this conditions that a checked is checked.	Fine sediment Foam  The sediment Foam   ts None Ot  None Ot  None Ot  n but rather is to provinot intended to directle nalysis or that affect a	her: her: ide a more y influence a nother use.	
BOTTOM DEPOSIT:  WATER SURFACE DE  mments: Please att  is information is not to  prehensive understand  sion on the recreation  ase verify that you	ach any add to be used sole ling of water use analysis b	☐ Sludge ☐ Oil itional commentally for removal of a conditions. Consecut may point to contend all sections	Solids Scum Sto this for a recreation acquently, this conditions that a checked is checked.	Fine sediment Foam  The sediment Foam   ts None Ot  None Ot  None Ot  n but rather is to provinot intended to directle nalysis or that affect a	her: her: ide a more y influence a nother use.	
BOTTOM DEPOSIT:  WATER SURFACE DE  mments: Please att  is information is not to  prehensive understand ision on the recreation	ach any add to be used sole ling of water use analysis b	☐ Sludge ☐ Oil itional commentally for removal of a conditions. Consecut may point to contend all sections	Solids Scum Sto this for a recreation acquently, this conditions that a checked is checked.	Fine sediment Foam  The sediment Foam   ts None Ot  None Ot  None Ot  n but rather is to provinot intended to directle nalysis or that affect a	her: her: ide a more y influence a nother use.	

Feature Type (riffle, run, or pool)	12	1	10	9	&	7	6	O1	4	ယ	2		Measurement									
	43	اب ان	5	ت ش	3	T.		٠,٩	2.4	7	0		Distance (m)	2		Field	Average	_		Estimated Channel Incision: 2/	Waterbody ID: 0000	
Cionie	0,0	9	0 -	0,2	0,3	0,7	9	1:07	0	-	<u> </u>	9	Depth (m)			Field Staff:	Average Stream Width:	Horizontal Accuracy Estimate (GPS Data Quality):	8146840 X WIN	Estimated Channel Incision: GPS I ocation (taken at trans	ğy ID: I	j
Noor	0.8	0.20	2 2	() (0) (0)	なりの	6.77	6.20	7.2 8.	3.2	7,7	7	2 77 6	Distance (m) De	02		O	Width:	al Accura	68 hc	nel Incisi	2000	3
	0 12	- 13	0,5	Ŵ	Ċ& Ţħ	;-1	ic c	18	5. 5. T.	7	, Co	0	Depth (m)		-	Pillerin		icy Estin	1/8	Susect:		0
RUN	0.0	0 0,1	<i>G</i> Q	S	2	.2	0	4.8 6,	6 0,2	0 -	ة م	0,0	Distance (m) Depth (m)	03		1	OQ.	nate (GP		) (m)	Site	2
	N	لن	2 3.2	3.0 0.0	7.7	725	1 235	7.0	7 1.48	-is	2 1,25	1.0	Distance th (m) (m)			+170		'S Data	1. Y.	(height	Site #:(WB	: 2
RUN	0 0:	00	.25 00	0.2	R 0 5	0	0 0	0 72	757	0	0	0 1	Depth (m)	04			(meters)	Juality):	UTMY: 4442597	$\frac{2}{2}$ (m) (height between low bank width and water)	(WBID_Site#)	
Pion.	5	エニ	7.00	ري دن دن	12	250	12		<u></u>	0	9	Ö	(m) (m)			(20x a	•	<b> </b> +	14	ı low bar	14	4
23	0,2	0,2	0	0 3	0	014	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	0	0	0 (3	0	0	Depth (m)	05	Tran	verage st	ngth of S	Complex services	)	k width a		
120	4,3	エ	40,4	3	7.9	2.5	12	+7	-is	0	0,5	0	) (m)		Transect Cross-Section	(20x average stream width)	Length of Survey Segment:	(reet)		and wate		
RUMPOOL	0	0	0.4	. J	2	ت. ٥	0.6	016	2.0	0,4	0,3		Depth (m)	6	oss-Se	(h)	egment:	•		Ĵ		
70	7,3	4	17.9	4,50	0.3	6.7	36	لينسر	22	is	QQ S	0-/-	(m)	07	ction							
Run	000	0	0,2	0.7	0,2	017	0,3	3.2	4,0	0,4	9	9	Depth (m)				(m					
1000	5	9,20	(N)		is s	9,0	7-	00 03	2.5	2.00	1110	0,2	(m) D	8			(meters)					ור
C	0.0	-	<u>ev</u>	0 - 0	C0.1 E	101 B	107	0,0	0.0 7	0,2	012	0;	Depth (m)	2	_	Water I		လ	Dissol	Dissol	Date:	
<u> </u>	0 2 6	p,4	0 00 60	21,7	4.60	200	少 上 0	2.80	2.20	6	ō o	2 2	(m) Dep	09		Water Temperature:		ecific Co	ved Oxy	Dissolved Oxygen:		3
<u> </u>	Š Ø	.7.	3	D: 7	95.5	ر ت ا	5 2 2	23.4	013 245	D:10	= 15	0 0	Depth (m) (m)	2		1	1	Specific Cond: 5%	Dissolved Oxygen:		10/	SSOIVE
KIRKE	0,0	0 -	15 10,	707	5 601	0	1:0 5	0/2	5 0,2	0,2	0	0	n) Depth (m)	10		2.2		29/2	- 88	5.90	) Ime:	Ulssolved Uxygen
<u> </u>	5.9	8.T	14.35	~ 0	3.45	3.0	7.55	21	- ST	21.2	24.0	9	(m) (m)			(5,0)	1	(uS/cm)	(% sat)	5,99 (mg/L)		
できて	9,0	0 1 1	50.2	0	0 N	0	0	9	0,3	N O	0.7	9	Depth (m)	3				ij,	at)	_	8	. N

Notes: Transects will be measured beginning on left descending bank and finishing on right descending bank.

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Transects in order of up to downstream.

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as <1

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire, wetted width distance and depth = 0.m.

Signed:

anc 5-24-67 Date: 5/23/07

WBID#_	0608
Site#	8

# Data Sheet B - Site Characterization (must be completed for each site)

Date & Time:	5/22/2	134		Site Location Description (e.g., road crossing):								
Personnel (Data	Collectors):	P. MARTIN & 7	Te74	HWY T-BRIDGE CROSSING								
			p 3 660° ° ° °	Facility Name: AUBURN HIUS WUTF, MILAN WUTP								
Current Weather	Conditions	P. CLOUDY		Permit Number: MO 01/93/8; MO 0048/5/								
Weather Conditi	ions for Past	10 days: VNICH	nu U			and the second s						
Drought Conditi	ons?: No dr	ought □; Phase I □	; Phase II 🗆	l; Phas	e III □; Phase	IV □; Unknown ☑						
	***************************************		<u> </u>	,	·,	<b>,</b>						
Locations:		IIVERSAL TRANSVERS	E MERCATOR	PRO IE	CTION IN METER	(20						
		ГМ X: <i>044</i> 84			7	140419						
		ETHOD (Indicate the me		termine	· ·	(						
		Positioning System (G				Interpola	tion					
Static Mode	Idin a mantial	· · · · · · · · · · · · · · · · · · ·				phic Map or DRG						
Dynamic Mode ( Precise Positioni					-/-	notograph or DOQQ	$\longrightarrow$					
Signal Averaging				$\mapsto$	Satellite							
		noi no			/ merpola	tion Other						
Real Time Differ				L								
HURIZUNTALA		GPS Data Quality				Interpolation Da	ata Quality					
FOM	l ±	Meters	~									
EPE		<u>U</u> Feet or ±			Source	Map Scale: 1:24,000 1:100						
PDOP						±Feet or ±	Meters					
	I					-						
otos:												
Photo ID# (WBID Site# ##)		Photo Purpose and D (upstream, downstream, o			Photo ID# Photo Purpose and Direction (WBID_Site# ##) Photo Purpose and Direction (upstream, downstream, other)							
0608-8-224	UVSTREA	M, SITE HB T	RANSECT	14								
	- PIPE	gp										
		reem; site	HQ.+OLAC	LLMS								
0000-0-0-	DOMIN 2	I LECHA / DI LO	down pay 1 18 Let 1004	hour fielder								
- Ob	J+- /TT	, m x										
		actually observed										
Swimming		☐ Skin diving		CUBA	diving	☐ Tubing	☐ Water skiing					
☐ Wind surfing	3	☐ Kayaking	□в	oating		☐ Wading	☐ Rafting					
☐ Hunting		☐ Trapping	□F	ishing		None of the above	☐ Other:					
			ng, photo-doo	cument	ation of evidenc	e of recreational uses, etc. U	Jse Data Sheet D- Recreation					
Use Interview w	hen conduct	ring interviews.)										
		_										
			note or impede	recreati	onal uses. Attach	photos of evidence or unusual it	ems of interest.)					
rounding C	ondition	S*: (Mark all that pron										
rounding C		S*: (Mark all that pron  Playgrounds	☐ MDC co	onserva	tion lands	☐ Urban areas	☐ Campgrounds					
	parks					☐ Urban areas ☐ Nature trails	☐ Campgrounds ☐ Stairs/walkway					
☐ City/county	parks esses	□ Playgrounds	☐ MDC co	ıl forest								
☐ City/county ☐ Boating acco	parks esses	☐ Playgrounds ☐ State parks	☐ MDC co	ıl forest		☐ Nature trails	☐ Stairs/walkway					

WBID#	0608
Site#	7

# **Data Sheet B - Site Characterization**

ndications of I	Human Use*: (a	ttach photos)						
☐ Roads	☐ Rope swings	☐ Foot paths/prints	☐ Dock/platfor	m 🗆 Live	estock Watering	□ RV / AT	V Tracks	
☐ Camping Site	es	☐ Fire pit/ring	☐ NPDES Disc	harge 🛮 🗆 Fish	ning Tackle	Other:		
Comments:	: upstream	(r. ansech				***************************************		
Stream Morpho	ology:	criptions: Is there				] No ] No		
	he following cha							
Channel Feature	Transect (#	t) Distance from access (m)	Width (m)	Length (r	n) Median I	Depth (m) Ma	ax. Depth (m)	
RIFFLE								
RUN								
POOL								
Select one of t	the following cha	nnel features:	is there an obvio		☐ Yes  Median Depth	□ No (m)   Max	x. Depth (m)	
RIFFLE								
POOL								
% C	obble 20 9	d add up to 100%.) Gravel 80  ount of vegetation o	% Sand	% Silt		/Clay	% Bedrock	
					· · · · · · · · · · · · · · · · · · ·			
	eristics*: (Mark					***************************************		
ODOR:		☐ Sewage ☐	Musky   Chen	nical 🗵	None	er:		
COLOR:		☑ Clear □	Green Gray		Milky Oth	er:	····	
BOTTOM DEP	OSIT:	☐ Sludge ☐	Solids Fine	sediments	None 🗆 Oth	ier:		
WATER SURF.	ACE DEPOSITION:	□ Oil □	Scum   Foan	n 💆	None 🗆 Oth	ier:		
This information is comprehensive und	is not to be used solderstanding of water	litional comments t ely for removal of a r conditions. Consequ	ecreational use de lently, this inform	ation is not inte	nded to directly	influence a		
lecision on the rec	reation use analysis	but may point to con-	ditions that need f	urther analysis	or that affect an	other use.		
Please verify tha		leted all sections, c					mplete.	
Surveyor's Signa	ture: //M	el Mart	D	ate of Survey	5/23	107		
Organization:	HE Solutte	on s	Position:	ENV. S	Perialis	<u>+</u>		
February	16, 2007	ghc	5 - 2-4 -0 r	1 Com	5/25/07	r		

Feature Type (riffle, run, or pool)	12	<u> </u>	10										Measurement						· ·	e e
	2 10.0	00 -0	-0   00	00	8 	7 6:2	(%)	<u>L</u>	35	32.4	2/7	0.00	Distance (m)			Averaç Fiel		GP0 L	Estima	Water
	o S	0	2,5	2	0,4	0,4	0,4	0.2	ن	0.2	0,1	0,1	Depth (m)	3		erage Strea Field Staff:	Horizo	UTM X:	ated Cha	Waterbody ID:
Transport will be managed for the property of	7.5	4	5.83	5	5.33	Z. Ž.	工28	W È	22	67	7.65	7,0	Distance (m)			Average Stream Width: Field Staff: P, MA	Horizoniai Accuracy Estimate (GPS Data Quality):	UTM X: 040349 2	Estimated Channel Incision:	
Pool	0,0	0.2	0.5	0.6	0,4	0 - 3	0,3	0:3	0.2	9) 9)	0,2	0	Depth (m)	02		R. MARETIN	uracy Es	The second	ision:	0603
	12,0	Property and a second s	0.3	100	<u>–</u>	のたり	5.0	, , , ,	77 80	4	5	3-4	Distance (m)	03		4 0	sumate (	(t ).	20	
Pos C	2	0	2	Ö	0	-0 >	<i>n</i>	<del>با</del> 2	ç.	o V	のジ	in the second	Depth (m)			17	GPO D	UTM Y:	(wold_sile#)  (m) (height between low bank width and water)	Site #:
Do N	からた	<u>+</u>	-	2	2	らい	77 70	<u>-</u>	2,5	-0	13	4.0	Distance (m)	04		(m	ila Quai	4440419	ght between	8090
doccondin	0	3	0, -	0	0 W	 	N O	W O	0,3	2.2	0.2	2	Depth (m)			(meters)		0	/een low	00
	2.7	3.6	W	0,0	2.4	24 0	12.	00	J	encount encounter	Qs G	5.0	(m) D	05		Length of Survey Seg (20x average stream width)	#- &>		/ bank w	
2	100		0	270	0,2	0,73	0.22	2	0:2	0	0	0	Depth (m)		Transe	of Survage strea	V	3	idth anc	
Dow	Š	e 7 %	ة ق	ic	0 33	5.4	2	٥	ē.	正	20	0,4	(m) De	06	Transect Cross-Section	Length of Survey Segment: )x average stream width)	(reet)	(foot)	water)	
	,0 7,	5			2	200	0.2 2	5. P	0,7	- 2,7	0,20,	78 	Depth (m)		s-Sect	1	-			
RUN	7	2	5.05	9	N O	0.2	58	0 N	25.0	2 0.3	0.65 0	1 0 1	(m) Dep	07	ion	C				
	0,0 %		9.0	ia 	70	2 6.0	200	7 4.0	3.0	3 20	0.3 1.0	—	Depth (m) (I			(meters				
Run	°o m	0,000	ō	0	0	ō	0	Ş	Ö	ó	0	0,0	(m) Depth (m)	08		<u> </u>		· · · · · · · · · · · · · · · · · · ·		Date:
	0,	ja	50	2 8:1	7	0	2	V	(3)	4 2.1	2	0	h (m) (m)			/ater Te	Spe	Dissolve	Dissolve	2
8	20.0		0	0	Ō.	© V	0	1,0	4	ري د د	9	0	nce Depth (m)	09		Water Temperature:	Specific Cond:	Dissolved Oxygen:	Dissolved Oxygen:	Disso /23/0구
-	09,2	60 00	W 2 2 2 2	2		00	- N	W T	7 2.6	<u>~</u>	20	0,2	(m) (m)	!		re:	nd:	en: 70	ı	solved →
boot	0	0	Ö	0.3	0,4	0 2	2	0,7	0,7	0,7	0	B	Depth (m)	6		Lower Comments of the Comments	7	2	4819	Dissolved Oxygen
C.	10,5	10,2	9.2	8,2	172	4.2	5.2		72	22	5 7 2	0,0	(m) (m)			_(°C)	(μS/cm)	(% sat)	(mg/L)	
	0 0	0	3	0	0.2	9	9	0	0,6	4.0	B,4	0,1	Depth (m)	=======================================			n)	Ċ	<u> </u>	**

GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Transects in order of up to downstream.

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as <1

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire wetted width distance and depth = 0m.

Signed:

Auc 5-24-09 Mc Shot

WBID#	0608
Site#	9

# **Data Sheet B - Site Characterization**

Date & Time:	-1-1 1119-		Site Location Desc	cription (e.g., road crossing):							
4	1/23/07 1430		THUNDER ROAY)								
Personnel (Data Col	lectors): PIMARTIN + JE	1071		· · · · · · · · · · · · · · · · · · ·							
Current Weather Co	nditions: A CLOUDY		Permit Number: MG OIL 9318; MO 648151								
Weather Conditions	for Past 10 days: UNKNO	พฟ		•							
Drought Conditions	?: No drought □; Phase I □	; Phase II □; Ph	nase III □; Phase	IV □; Unknown □							
ite Locations:											
	ATES (UNIVERSAL TRANSVERS										
F	ates: UTM X: 54 8869			39737							
	Global Positioning System (G		ine the locational data	.) Interpola	tion						
Static Mode			Topogra	phic Map or DRG							
Dynamic Mode (Kine	ematic)		/ Aerial Ph	notograph or DOQQ							
Precise Positioning 8	Service		Satellite	Imagery							
Signal Averaging			Interpola	ition Other							
Real Time Differentia	al Processing	/	<u> </u>								
HORIZONTAL ACCI	JRACY ESTIMATE										
	GPS Data Quality			Interpolation Da	ata Quality						
FOM	±Meters		Søurce	Source Map Scale: 1:24,000 1:100,000 Other							
EPE	± <u>42</u> Feet or ±	Meters		± ************************************							
PDOP	© Conversion of Administration 1			ivieters							
notos:											
Photo ID#	Photo Purpose and D	irection	Photo ID#	Photo Purpo	ose and Direction						
(WBID_Site#_##)	(upstream, downstream, o		(WBID_Site#_##)	(upstream,	downstream, other)						
0608-9-220 VI	ISTREAM SITEH9 +	KYNZEC/ IT!									
0608-9-278 00	WNSTREAM SITE H	A LOSSARAL B									
ses Observed*:	(Uses actually observed	l at time of su	rvey.)								
☐ Swimming	☐ Skin diving	☐ SCUE	BA diving	☐ Tubing	☐ Water skiing						
☐ Wind surfing	☐ Kayaking	☐ Boatii	ng	☐ Wading	☐ Rafting						
☐ Hunting	☐ Trapping	☐ Fishir	ng	None of the above	☐ Other:						
	number of individuals recreating conducting interviews.)	ng, photo-docume	entation of evidenc	e of recreational uses, etc. U	Jse Data Sheet D- Recreation						
urrounding Con	ditions*: (Mark all that pron	note or impede recre	eational uses. Attach	photos of evidence or unusual i	ems of interest.)						
☐ City/county parl	ks Playgrounds	☐ MDC conser	rvation lands	☐ Urban areas	☐ Campgrounds						
☐ Boating accesse	s	☐ National for	ests	☐ Nature trails	☐ Stairs/walkway						
☐ No trespass sign	☐ Fence	Steep slopes	8	☐ None of the above	☐ Other:						
Comments:											

WBID#	0608
Site#	a

# Field Data Sheets for Recreational Use Stream Surveys

# **Data Sheet B - Site Characterization** (must be completed for each site)

In	dications of H	luman Use*: (at	ttach photos)							
	☐ Roads	☐ Rope swings	☐ Foot paths/prints	s □ Doc	k/platform	☐ Livestock	Watering	☐ RV / ATV Tracks		
	☐ Camping Site	s	☐ Fire pit/ring	□ NPI	ES Discharge	☐ Fishing T	ackle	☐ Other:		
	Comments:									
		Non	e							
St	ream Morpho	loav:			ş					
	-		criptions: Is there	e anv wate	r present at th	is view? □	Yes [	] No		
	c pstream vie	s i nysicai bes	_	1	obvious curre			No		
	Select one of the	he following cha			/			1,0		
	Channel Feature	Transect (#	Distance from access (m)	n Wie	Íth (m)	Length (m)	Median D	Depth (m)	Max. Depth (m)	
	RIFFLE									
	RUN			$\mathcal{X}$						
	POOL				$-$ \_\_					
	Downstream \	View's Physical I	<b>Descriptions:</b> Is the		1			□ No		
	G.1	1 . C. H		, is there a	n obvious cur	rent?	□ Yes	□ No		
	Channel Feature	he following char		idth (m)	Length (n	n) Me	dian Depth	(m)	Max. Depth (m)	
	RIFFLE									
	RUN									
	POOL									
Sı	ubstrate*: (Th	ese values should	l add up to 100%.)	ı						
			% Gravel 95		all the second of the second o	% Silt	% Mud	/Clay	% Bedrock	
Δι	nuatic Vegeta	tion*: (Note amo	ount of vegetation	or algal gr	owth at the as	sessment sit	e )			
~'	duatic Vegeta	<u> </u>	diff of vegetation	or argar gr	own at the as	SCSSIIICITE SIU	c. <i>j</i>			
		VONE				***************************************				
W	ater Characte	eristics*: (Mark	all that apply.)							
	ODOR:		☐ Sewage ☐	□ Musky	☐ Chemical	None	☐ Oth	er:		
	COLOR:		Clear [	Green	□ Gray	☐ Milky	√ □ Othe	er:		
	BOTTOM DEPO	OSIT:	☐ Sludge ☐	☐ Solids	Fine sedimen	nts 🗆 None	☐ Oth	er:		
	WATER SURFA	ACE DEPOSITION:	□ Oil □	☐ Scum	□ Foam	None None	☐ Oth	er:		
C	omments: Plea	ase attach any add	ditional comments	to this for	m.					
ψn	m		1.6 1.6	,•		1 ( 1 )				
			ely for removal of a conditions. Consec							
			but may point to co							
Pl	ease verify tha	t you have comp	leted all sections,	checked a	ll applicable	boxes and	that ever	ything i	is complete.	
Sı	ırvevor's Signat	ture: //////	e Mart		Date of	Survev:	K/23/	07		
Oı	ganization:	E SOLUTION	V 5	Positio	n: ENV. G	WUNJST	<del>- /    </del>		The second secon	
J1	- Banna attoni	See the see to be a see to be	a u c	1 031110	7 4-8	n				
	February 1	6, 2007	Mart Vs Ruc Dor	5/25	167					

Feature Type (riffle run, or pool)	12	<u> </u>	10	9	œ	7	6	ڻ. ت	4	ယ	2	_	Measurement								
N	2.00	 	<u>ب</u> ان	r.	4.10	- - - - -	-	Ŝ	25	1	7) 29	0.1	Distance (m)	2		Field	Average		GPS Lo	Estimat	Waterbody ID:
Ē	B, O	G ~~	ر م	, 0	0 !	0,2	9	0	2	70,1		0 :	Depth (m)			Field Staff:	Average Stream Width:	Horizont	ocation (t	ed Chan	
Stall De	9,90	2.6	0.95	0000	7.050	0	S	いって	3.%	23	1.35	0.4	(m) D	02		Ž,	Width:	al Accur	taken at transec	Estimated Channel Incision:	2000
The same	10 10		~	5. V. 20	<u></u>		0:-	ά - ο	0.13	10,12	10,1	0,1	Depth (m)			MareTIN	-0	acy Esti	GPS Location (taken at transect 1): UTM X: レイタヌ 69 テ	ion:	
Bor	(d)	12.20.2	o o	io eq	ō .e.	7.4	62 0,4	Q'	00	27.0	4	67	(m) Dep	ಜ	Bully and the	2	0	mate (GI		(m	Sit
and 6 inching	2 12	, research	i de la	iso N	~\ ~\	5 6:	5.6	4	w	4 23	\(\sigma\)	011 01	Depth (m) (	)		4		PS Data	UTM Y: 4	(WI) height)	Site #:
Z	ō o	ر و	0	5	5 5 47	ŏ 47	6	5	5	Ó	<i>ب</i> ر 0	0,	(m) Depth (m)	04			(meters)	Horizontal Accuracy Estimate (GPS Data Quality):	26577	(WBID_Site#) (m) (height between low bank width and water)	000
	0 2		0	か で か	68	47	4	27.2	する	4 2.5	3 113	1 0.7	h (m) (m)	)	-	X02)	·	  +	T1 000	n low ba	
700	0 0	9	00.00	70.9	50.9	0.0 0.0	4) 0	0,6	7.0	20,1	0.2	0, /	Depth (m)	05	Tra	(zox average sireaiii widiri)	Length of Survey Segment:	42		nk width	
	0 5,8	S)	00	5	9	N	30	2,5	120	- X	1.0	0,5	(m) (m)	2	nsect (	Stream	Survey :	(feet)		and wa	
82	<u>0</u>	c ,	0,2	o,	<i>O</i>	N S	خ آن	4.0	0 %	0,2	011	ō	Depth (m)	6	Fransect Cross-Section		Segment	<b> </b> =		ter)	
200	23	i.	a) e	(N	, Çv	and	と	Q	(2) (W)	6	_o	0.2	)) (m)		ection		- B				
UN	0,0	ó	0	3	o Ö	, ,	o Ŵ	Ŝ	0.3	0,3	0,4	0	Depth (m)	07							
202	0	30	7.98	6.3	\$3.5	ec T	4.05	S	2.55	1.8	1.05	0,3	(m)	08			(meters)				
	0	0	10.1	60,1	70.	10 C	0	3.7	2.5	0.3	0.5	0	Depth (m)	:		A A OLG		<b>.</b> 0	Disso	Disso	Date: _
STOOL STOOL	2 2 32/	<u>-</u>	47	23	(J)	N	- (v)	24	0, 19	0.0	200	0	(m) D	09		Water reinberature.	1	Specific Cond:	Dissolved Oxygen:	Dissolved Oxygen:	5/23/0⊋
	0	011	5	0,25	0 0	23 6	0/2	1 20	0,62	2.5.0	0 5	0.1	Depth (m)						ygen:	ygen:	Dissolv
Rool	0.00	0	20 -20 -20	0000	9 11 12	10 D.A	4.0 5.5	44 0	33 110	2.2 >	9	0.0	(m) Dep	10			0	25	8	% 2 1,2	Dissolved Oxygen
<u> </u>	0	10.	0.	60	a0 44.	~ 5	9	1,	ίη O	V 0 2 1	000	0.1	Depth (m) (n	2				Su)	(%	(mg/L)	
Rool	004	10	4.0	G	0 V	000	0.8	0.9	1/10	77.0	0.6	1001	(m) Depth (m)	3				(uS/cm)	(% sat)	J/L)	g Pi
	Ľ	,	1	a deliver		07	00	3		0	Ĭ		3								

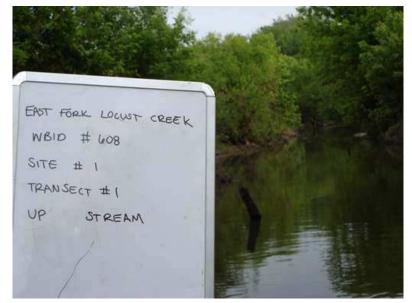
GPS location corresponds to Transect 01. Transects ordered in upstream to downstream order.

Transects in order of up to downstream.

Mark dry depth measurements as 0; measurements less than 0.1m as <0.1; and greater than 1m as >1

Measurement 1 depth = 0.1m (unless depth is insufficient); Measurement 11 depth = 0.1m (unless depth is insufficient); Measurement 12 distance = entire wated width distance and depth = 0m.

But 5-24-07 Date: 5/23/07 Myshow



Site# 1 Photo ID# 0608-1-207, Upstream



Site# 1 Photo ID# 0608-1-210, Cracked pipe



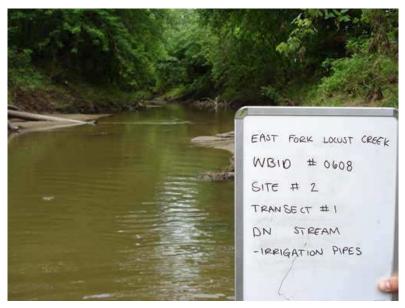
Site# 1 Photo ID# 0608-1-208, Downstream



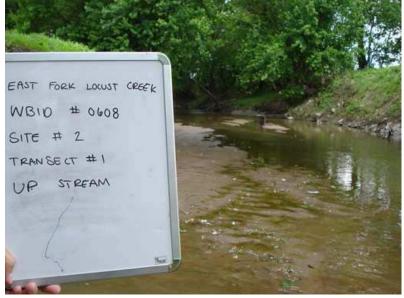
Site# 1 Photo ID# 0608-1-209, Pipe



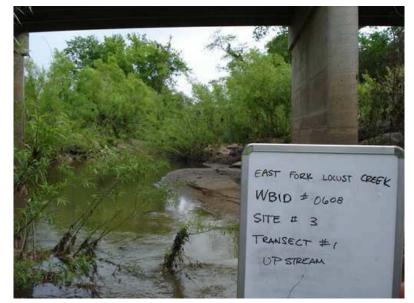
Site# 1 Photo ID# 0608-1-211, Footprints



Site# 2 Photo ID# 0608-2-212, Downstream



Site# 2 Photo ID# 0608-2-213, Upstream



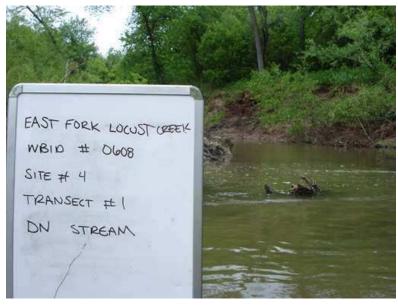
Site# 3 Photo ID# 0608-3-214, Upstream



Site# 4 Photo ID# 0608-4-216, Upstream



Site# 3 Photo ID# 0608-3-215, Downstream



Site# 4 Photo ID# 0608-4-217, Downstream



Site# 5 Photo ID# 0608-5-218, Upstream



Site# 6 Photo ID# 0608-6-220, Upstream



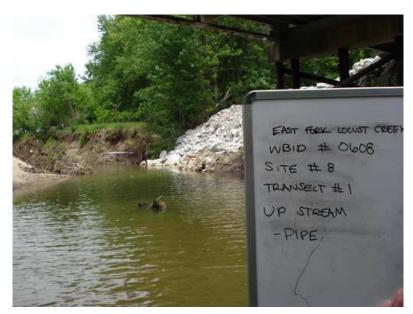
Site# 5 Photo ID# 0608-5-219, Downstream



Site# 6 Photo ID# 0608-6-221, Downstream



Site# 7 Photo ID# 0608-7-222, Upstream



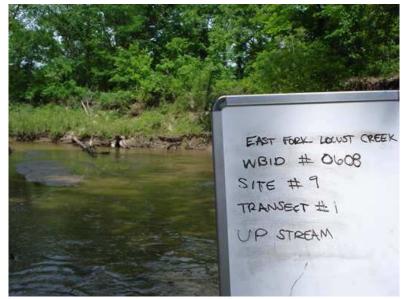
Site# 8 Photo ID# 0608-8-224, Upstream



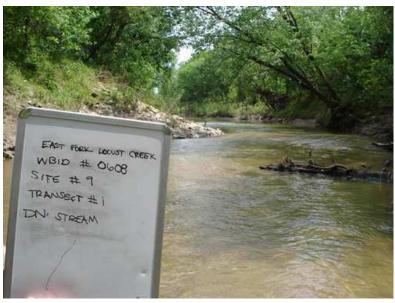
Site# 7 Photo ID# 0608-7-223, Downstream



Site# 8 Photo ID# 0608-8-225, Downstream



Site# 9 Photo ID# 0608-9-226, Upstream



**Site# 9 Photo ID# 0608-9-228, Downstream**